THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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THE ROYAL ACADEMY AND ARCHITECTURE

THE Royal Academy has become a sort of national institution representative of art in the eyes of the general public. Three facts largely account for this. It has been established a long time, it has the distinction of the Royal prefix, and it has been mainly concerned with the exhibition of pictures which represent the chief concern of art in the eyes of the multitude. As the Royal Academy is a self-supporting body and owes no responsibility to anyone or any public authority, it can pursue its own methods without any outside interference. But it cannot, of course, escape criticism, and has had that in plenty. There is now an increased and influential body of opinion that either the Academy should alter its attitude towards art or be superseded by a really national and broad-minded Academy.

Is it not reasonable to assume that a representative academy of art should have more concern with the living practical art of architecture than to devote only one small gallery out of its sixteen to its illustration? We have growing up around us all over the land buildings which concern the comfort and beauty of the daily life of millions, and the influence of art in their design, construction, and decoration, should surely be of the greatest importance to our academy of art. The great and fundamental mistake of treating art as a matter of pictures chiefly, and at most of only a detached concern of life, is answerable for much of our failure to give beauty and attractiveness to the daily surroundings of our people. It was a most encouraging fact that an architect was recently elected to fill the presidential chair of the Academy for a few years, and Sir Aston Webb's tenure of that office, which he filled with ability and distinction, brought the art of architecture more into note without in any way detracting from the aims or ambition of the painters of pictures.

The importance of art in relation to pictures no doubt gains greatly in significance to the public when they hear of about a hundred thousand pounds being paid for one picture, or five hundred pounds for one impression of an etching, but what are such (more or less fictitious) values compared with the millions we are spending on public and private buildings which will be in the eye of the multitude for over a hundred years? Really, the creation of beautiful buildings should be the most widespread, significant and vital of all the arts.

Under the adverse conditions what can we say of the present exhibition except that it appears signally to fail in making the best of them. Several yards of wall space are covered with subjects which might well have given way to other work, and considering the small size of the gallery it is surely a mistake to send so many large drawings. This poverty of space has doubtless been the reason why we cannot emulate American architects in the large scale of their drawings and have to be content with small frames and attenuated effects. Three Academicians from whom we have had interesting works in years past monopolise spaces this year which must have crowded out meritorious work, and rejected competitive designs again take up space which one feels might have been allotted to accepted designs. It is certainly not an exhilarating exhibition of architecture, and hardly any exhibitor, besides Sir Giles Scott and Sir Edwin Lutyens, affords us glimpses of ideality or imagination. Such excellent works as the Hudson Bay Company's model, by Messrs. Mewes & Davis, the model of offices by Mr. Curtis Green, Mr. Tapper's church, Messrs. Hoare & Wheeler's College Building, Mr. Guy Dawber's Reptile House, the graphic sketches of Devonshire House by Messrs. Hastings & Reilly, and several other things are of the size and quality which we can heartily welcome. We are quite aware that out of the millions spent on building, a large proportion could not be seriously considered as any contribution to art, but even with this reservation there is immense expenditure annually on buildings which do merit some real claim to artistic value. The proportion of good building to bad or indifferent work is much more likely to be increased if the public can be encouraged to believe in the value of beautiful building, and if architects can be assured of appreciation for what they do. For our part, we would insist on a high standard of work being required to secure the honour of exhibition at the Royal Academy, and we repeat that architects have not been receiving at the hands of the Royal Academy that recognition which the importance and merit of their work entitles them to. We would neither aim to fill the gallery or produce a fully satisfactory balance in the hanging unless the quality of possible exhibits justified it. It should be an honour to have a building exhibited at the Royal Academy, but no dispassionate observer or critic could maintain that the honour is carefully enough guarded in the usual exhibition nor that a proper proportion of our best work is shown.

We hope to refer to subjects more in detail next week, but we feel our first duty is to utter a protest against the lack of wisdom and consideration which is shown in the exhibition of architecture year after year at the Royal Academy. When most of the pictures sent to the Academy are destroyed or forgotten, we shall still have in our midst the new buildings which are so rapidly coming into being, and if the development and improvement of art in its widest sense is the concern of such a body as the Royal Academy we might surely expect a better treatment for architects and architecture. Apart from everything else, can it be reasonably held that one small gallery should suffice for the best architectural art of the year?

The emptiness of the large gallery can, we suppose, only be accounted for by the fact that there were not enough pictures which were of a quality to justify being hung there. If this was so, why could not one or two of the smaller galleries have been emptied of their best exhibits and hung in gallery number three, where they would have been adequately seen above the heads of the visitors, and the galleries thus depleted have been devoted to architecture? Another consideration also must be borne in mind. Art is concerned with many objects of fine craftsmanship, and why does not this kind of art receive some encouragement at the Royal Academy? We vouch for it that exhibits of this sort would have a great attraction for the public.

It is a matter for wonder, in these modern times, when there is so much catholicity of spirit abroad and such a widely extended general culture, that the painters cannot see how a more generous view of art would not only do a great service to art itself but also tend to a better appreciation of their own work.

NOTES

The Building Industry and the Strike. Now that the General Strike has been called off we may hope that the country will quickly settle down to its normal activities and that a settlement of the dispute with the miners may be hastened by the events of the past ten days. We are all familiar by this time with some of the results of a General Strike and the experience will no doubt be useful. The effect of the strike in the building industry was, we are glad to know, not serious, for not only was housing and hospital work permitted and carried on, but building operations in various parts of the country proceeded generally. How the country was affected in different areas is shown on page 817.

The Sympathetic Strike. THE resort to a general strike pending negotiations between two parties again illustrates the point we have frequently made that the protection of the Trades Disputes Act should not extend to sympathetic strikes, but should be confined to the actual parties to a definite dispute. Why should printers, for instance, be called out in a dispute between coal owners and miners? A wrong is surely committed against the whole community and the pressure which is applied by the strikers is both immoral and illegal. It is impossible to paralyse part of the industrial organism without injuring the whole.

Professional Art at the R.A. THE remark of a craftsman that it was hardly possible for the professional painter to get the intimate closely personal quality which attaches to the less professional outlook, and that the pride of technique often buries those qualities of special value which are more pronounced even in the work of the best amateur, is exemplified in the Academy this year. Professionalism wears an old-fashioned conventional aspect to-day, and changes in the last decade or so which have so much replaced the artist by the professional craftsman have led to criticism of this year's exhibition as somewhat "elderly," and falling back on the respectabilities which are opposed to what the art critic of *The Times* calls "youngness of heart." The fact is that custom has led us to expect a great deal from the Academy, which is now only one among other exhibitions which exist as a means of promoting the work of artists, and it is unfair not to recognise these changes which have so much altered its position. It may be unreasonable to complain that the Academy is not representative of all the vital directions of art to-day. Imagination is not prominent, and though there is good work shown it does not wholly represent either painting or architecture. The objects for which it was originally founded do not now apply to the arts which are more decentralised, and, like the theatre, are gaining in benefit from this less centralised character. After all, the values in art do not depend on official status, but on the artist, and they are often found where least these prerogatives apply.

The Bridges. THE bridge controversy appears likely to be re-opened as a result of the report of Sir Henry Maybury. A very important argument in favour of the preservation of Waterloo Bridge is that a census of the traffic over it reveals that it has diminished by 14½ per cent. The fact of the tonnage having increased does not affect the congestion, though laying a heavier burden on the bridge itself. Nor is this necessarily a danger as the subsidence seems more attributable to the alteration of the tides than of the traffic. There does not seem proof forthcoming that the present carriageway cannot meet the traffic, while it is clear that improved means of traffic is more urgent at Charing Cross. The letter from Sir R. Blomfield in a contemporary, in regard to the Charing Cross scheme, and the view of Sir H. Maybury that to remove Charing Cross station is not within the realms of practical politics brings before us again the proposal for a new bridge on the down stream side of Charing Cross bridge, an alternative advocated by Sir R. Blomfield more than a year ago.

House Builders. AT the annual meeting of the National Federation of House Builders the incoming President deplored the existence of "swarms of housing reformers" who are alleged to be handicapping the builders in their activities. The house builders have not yet apparently realised that these reformers are plaguing them only because the builders do not, even now, give adequate attention to the architectural quality of their work. They seem to believe that so long as they build houses cheaply and watertight nothing more is required of them. Until those in authority in their ranks begin to make a serious effort to improve the average builder's ideas on architecture, they will continue to be pestered by swarms of critics and reformers, and they will have only themselves to thank.

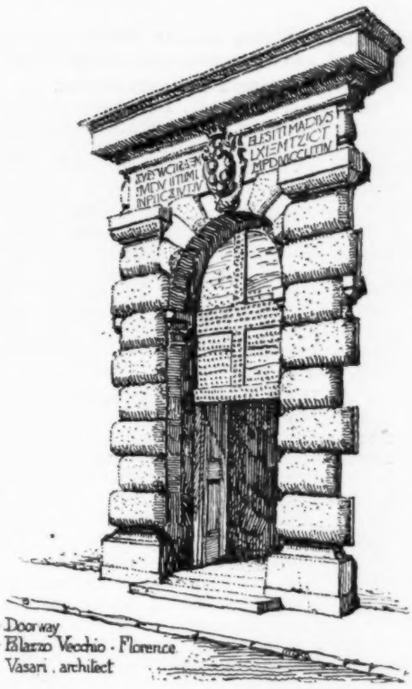
Alfred Stevens. GREAT achievements in art have been continually linked with disappointment, worry, and regret. Our past records of great artists like Michael Angelo, Palissy, Wren, and Stevens have provided us with poignant illustrations of this. In the very acceptable and admirably edited and produced little pamphlet on Alfred Stevens just issued from the Victoria and Albert Museum (7d. post free) we read of his life of disappointment and his constant

FROM A PEN-AND-INK SKETCH BY MR. MARTIN S. BRIGGS.

struggle with official interference. His designs for great industrial firms were the forerunners of the great modern developments which have linked Art and Industry.

A William Blake Memorial.

TIME brings its revenges, though we are not amongst those who would make a martyr of William Blake—poet, artist and dreamer—and the proposal to erect a memorial of him in St. Paul's Cathedral will find general approval. Not far away, in Bunhill Fields Churchyard, though the actual spot is unknown, William Blake and his wife were buried; there is consequently fitness in placing the memorial so near by. He has entered into his own in the fact that his songs have become incorporated in our national life. Perhaps it was to preserve him for the work it was his to do that he found such slender encouragement in his own lifetime. But success, as we understand it, has little to do in the reckonings of such men, and it is owing to our own want of understanding of the nature of greatness that our estimates are so founded. It is told of him that once, laying his hand on the head of a little child, he said to her, "My child, may your life be as happy as mine has been." Nor are the prerogatives of such men dependent on our acknowledgement of them. William Blake, however, decried, criticised, with faulty craftsmanship and a defective training, distributes himself now over the world with ever more and more editions, commentaries, and popular appreciation of his work. We are glad that this act of reverence should now be offered to his memory, and trust that it may take such a shape as that something of the spirit of this great man may be embalmed in it.



FROM A PEN-AND-INK SKETCH BY MR. MARTIN S. BRIGGS.

"Approximate Estimating."

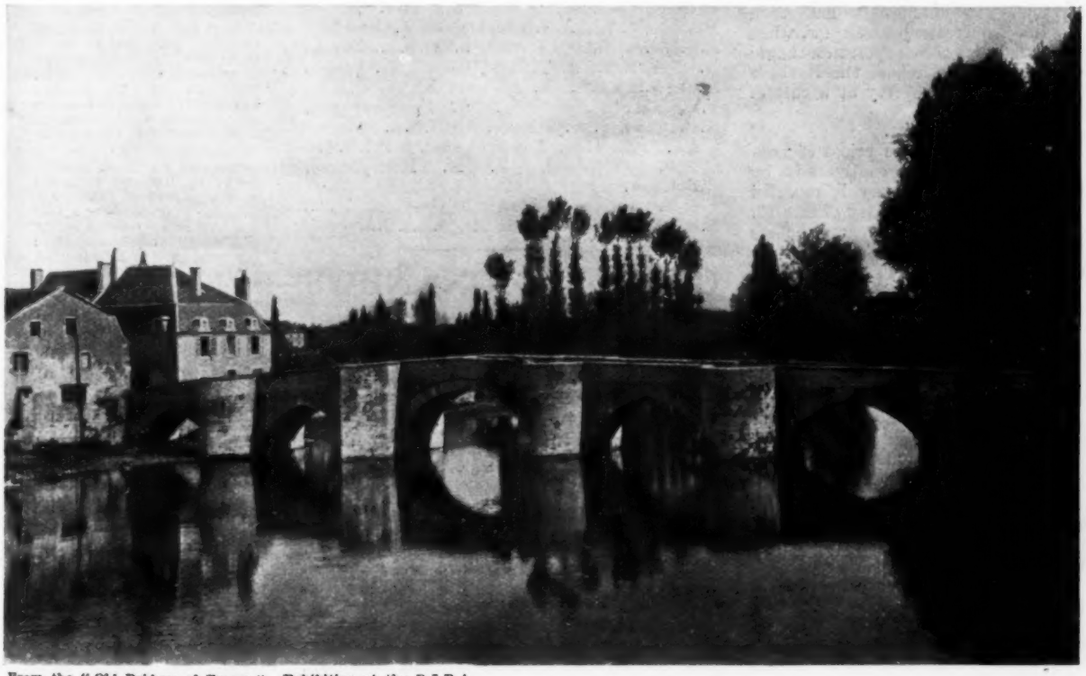
THERE can be few subjects of more common interest to architect, quantity surveyor, contractor, and estimator than "Approximate Estimating." It is for this reason that we have published fully a paper recently read before the Northern Polytechnic on this subject, which is concluded in this issue. The author set out to analyse critically the present methods in use and to make suggestions as a basis for further investigation for improvement in the use of these methods or the substitution of others modelled on the principles governing accurate estimates and the careful recording of work executed respectively. An extract from the Appendices 1 and 2 illustrating these methods is only possible with the space at our disposal, but the paper, together with the appendices, is being reprinted in pamphlet form and will, we believe, repay study.

"Period Residences."

"IN what is described by agents as 'a unique and desirable period residence,' nothing strikes any discordant note except the uncompromising pram." This extract is taken from a prominent article in a leading daily paper headed "One Discordant Note in Perfect Period House." The actual fact is clearly that the pram is the only article in or about the house, including the building itself, which is not a glaring anachronism. It is nothing short of a tragedy that so many people who imagine themselves endowed with taste should encourage a pride in what they call "the impeccability of our Queen Anne, Georgian, Adam, or Tudor interior decoration." The out and out Philistine is far less antagonistic to true art principles.

Illuminated Advertisements.

SOME slight compensation for our recent troubles has been the temporary mitigation of offensive street advertising by the ban placed on illuminated advertisements and many of the more blatant nuisances of obtrusive illuminated signs.



From the "Old Bridges of France" Exhibition at the R.I.B.A.

Old Bridge, Saint Savin, France.

GENERAL NEWS

Change of Address.

The Institute of Patentees has removed to 39, Victoria-street, Westminster, S.W.1. Telephone Nos.: Victoria 4222 and 4223. Telegraphic address: "Patentees, Sowest, London."

Preston Housing.

The Preston Corporation has purchased a farm of 61 acres of land for a new housing site for £10,000.

Ford's New Works.

Extensive developments of the Ford motor car industry on the Dagenham flats of Essex are foreshadowed.

Slum Clearance in London.

The L.C.C. have prepared slum clearance schemes involving an expenditure of a quarter of a million.

American Factory for Wembley.

Messrs. Wrigley, of Chicago, are building a £60,000 factory at Wembley. Messrs. Wallis, Gilbert & Partners are the architects.

The Adam Bridge in the Strand.

The little bridge built by Robert Adam above the roadway of Durham House-street, near the Adelphi is, the L.C.C. has decided, to be preserved.

Studentship for Building Research.

Mr. A. C. Bossom has given £1,000 to the Chadwick Trust to form a studentship for encouraging research into building materials and construction.

New Factory, Stoke-on-Trent.

A railway siding for the Michelin Tyre Co., in connection with their big new factory, is to be erected in the city, at a cost to the Corporation of about £25,000.

Rockefeller Gift to St. Thomas's Hospital.

The Medical School of St. Thomas's Hospital, London, has received a gift of £15,000 from the Rockefeller Foundation towards the building of new laboratories for the education of the students.

Royton Hall.

In connection with the intention of the owners of Royton Hall to offer the building for sale for demolition, the Ancient Monuments Society are asking the Royton U.D.C. to consider the possibility of utilising the building with a view to its preservation.

New Bridge Over the Clyde.

The proposal to erect a fixed bridge over the River Clyde at Finnieston has been approved by the Corporation of Glasgow, when it was also decided that the Corporation should exercise their option to purchase the Harbour Tunnel Co.'s works and property at a cost of £100,000.

Cheaper Houses.

A slight drop in the average prices of non-parlour houses included in the contracts let by local authorities during February is revealed by the latest figures of the Ministry of Health. The average cost of the non-parlour houses was £429, as compared with £456 in January and £439 in March of last year. During the years of 1920-21 houses of similar size cost over £800.

The National Library of Wales.

The National Library of Wales are appealing for funds for further provision for book storage. The works proposed include the completion and equipment of the library hall and the exhibition gallery, as well as the provision of room for about 900,000 volumes. The extensions contemplated are estimated to cost about £80,000.

A New Corner House.

The New Oxford Theatre, at the junction of Oxford-street and Tottenham Court-road, has been acquired by Messrs. J. Lyons & Co., Ltd., who are to erect a new Corner House on the site.

Bradford Royal Infirmary.

The announcement that a Bradford architect has been appointed to prepare plans for the new Bradford Royal Infirmary was made at a recent meeting of the Bradford Hospital and Convalescent Fund. A sum of £400,000 is required. Of this amount £93,352 has been received, and substantial donations promised.

Silvertown's Memorial Church.

St. Barnabas Church, Silvertown, has been rebuilt in memory of the parishioners who lost their lives in the Silvertown explosion. The cost of the new church, large hall, &c., is approximately £9,400.

Manchester's New Estate.

The Manchester Corporation is to purchase a large portion of the Wythenshawe Estate for the purpose of housing. The scheme involves the following expenditure: Purchase of estate, £211,100; extensions of Princess-road and construction of bridge over the River Mersey, £150,000; main outfall and intercepting sewer, £185,000; trading services, £119,000.

R.I.B.A. Fixtures Cancelled.

Owing to the General Strike it has been found to be necessary to cancel all the arrangements made in connection with the British Architects' Conference, which was to have been held from June 14 to 19, including the Banquet on June 17. A fresh date will be selected and arrangements made.

Garage at Underground Station.

The Underground Company announce that a garage is to be erected at Morden station on the new tube extension which will be opened in June. The garage, which will be built next to the station, is for the convenience of owners of cars living in the districts beyond Morden who may wish to drive to the Underground station and continue their journey to London by tube. An area of 55,000 sq. ft. has been set aside for the garage, which will afford accommodation for about 200 motor cars, motor cycles, and cycles. Facilities for buying petrol and for the cleaning of cars will be provided and, in addition, a workshop for light repairs in charge of a staff of mechanics. This innovation on the Morden line is to be regarded as an experiment, but consideration is being given to the erection of similar garages at Edgware, Hounslow, and other outlying terminal stations.

Liverpool Architectural Society.

Following is a list of officers and Council of this Society for Session 1926–1927, elected at a meeting held on May 5:—

President: Prof. C. H. Reilly, O.B.E., M.A., F.R.I.B.A.

Vice-Presidents: S. Segar-Owen, F.R.I.B.A., Edgar Quiggin, F.R.I.B.A.

Hon. Secretary: Ernest Gee, A.R.I.B.A.

Unofficial Members of the Council—Fellows: Leonard Barnish, F.R.I.B.A., Prof. L. B. Budden, M.A., A.R.I.B.A., Duncan A. Campbell, A.R.I.B.A., Edwin J. Dod, A.R.I.B.A., Harold A. Dod, M.A., A.R.I.B.A., Gilbert W. Fraser, M.C., F.R.I.B.A., E. Bertram Kirby, O.B.E., F.R.I.B.A.; *Associates*: A. C. Townsend, A.R.I.B.A., F. X. Velarde, A.R.I.B.A.

Hon. Treasurer: Edwin J. Dod, A.R.I.B.A.

Hon. Librarian: E. H. Honeyburne, A.R.I.B.A.

Hon. Auditors: Hastwell Grayson, M.A., F.R.I.B.A., G. Stanley Lewis, A.R.I.B.A.

COMPETITION NEWS

Masonic Buildings Memorial, Great Queen Street.

The assessors (Sir Edwin Lutyens, R.A., F.R.I.B.A., Mr. Walter Cave, F.R.I.B.A., and Mr. A. Burnett Brown, F.R.I.B.A.) in this competition have awarded first place to the designs submitted by Messrs. H. V. Ashley and Winton Newman, FF.R.I.B.A.

New Public Offices, Chingford.

The awards in this competition are as follows: First: Messrs. Lassetter & Ellis, Winton, Bournemouth. Second: Mr. H. T. Bonner, London. Third: Mr. R. N. Glegg, London. "Highly commended": Mr. D. A. Gald, London.

Edinburgh Cenotaph.

In connection with the proposed Cenotaph for Edinburgh, a public competition for designs is to be held, and Sir George Washington Brown, President of the Royal Scottish Academy, is to act as assessor. The cost of the cenotaph is expected to be about £3,000.

Doncaster Hospital for Infectious Diseases.

It is understood that, owing to the general strike, arrangements have been made for an extension of time for the sending-in of designs for this competition, and that competitors are to be notified of the altered date.

Bradford Grammar School.

The President of the R.I.B.A. is to be asked to appoint an assessor in connection with the new Bradford Grammar School.

Drinking Fountain, Clackmannan.

Clackmannan Parish Council invites monumental sculptors to submit designs and tenders for supply and erection of a granite drinking water fountain at the Recreation Grounds, Clackmannan, at a cost not exceeding £300. Further particulars may be had from Mr. James A. Hunter, Clerk of Council.

Competitions Open.

Plan for construction of Conference Hall, for League of Nations, Geneva. International Competition, Sir John Burnet being British representative on Jury of Assessors. 100,000 Swiss francs to be divided among architects submitting best plans. Programmes with R.I.B.A., 9, Conduit-street, where intending competitors should apply Single copies from Secretary General, League of Nations, Geneva, on payment of 20 Swiss francs	Particulars published in "Builder."	Sending-in date. Jan. 2, 1925. —
Elementary School, Oldbury, to be erected in Bristnall Hall-lane, Warley, Worcs, for the U.D.C. Mr. W. S. Skinner, F.R.I.B.A., assessor. Particulars of Mr. Arthur Culwick, Clerk to Council, Oldbury. Deposit £2 2s.		Mar. 12 .. May 21
Australian National War Memorial, Villers Bretonneux, France. Limited to Australians under special conditions. Apply Military Headquarters in capital city of each State, or High Commissioner's Office, Australia House, Strand, London. £2 2s. deposit required		Dec. 25 .. May 31
Royal Society of Arts Competitions for Industrial Designs. Apply Secretary, Royal Society of Arts		Jan. 1 .. June
(*a*) Dance Hall, (*b*) Restaurant (*c*) Variety Entertainment Pavilion, (*d*) Shops, for Aberdeen Town Council. President of the Incorporation of Architects in Scotland, assessor. Apply to Mr. A. B. Gardner, Director of Housing, Town House, Aberdeen		Feb. 26 .. June 14
Buildings and lay-out of a new Cemetery abutting on Aylestone-lane, for the Leicester Corporation. Premiums: £100, £50, and £25. Mr. H. V. Lanchester, F.R.I.B.A., assessor. Apply City Surveyor, with deposit of £1 1s., payable to City Treasurer		April 16 .. July 12
Incorporated Architects in Scotland: (1) Rowand Anderson Medal and £100: City Art Gallery and Museum; (2) Rutland Prize (£50) for Study of Materials and Construction: (3) Prize (£10 to £15) for 3rd year Students in Scotland; (4) Maintenance Scholarship, £50 per annum for 3 years. Apply Secretary of the Incorporation, 15, Rutland-square, Edinburgh		Nov. 6 .. —
Royal National Eisteddfod of Wales, Swansea, Competitions: (1) National Parliament House of Wales (Prize, £100); (2) Street Facade to a Large Stores (Prize, £25); (3) Set of Measured Drawings of Architecture (Prize, £25). Apply for programme to publishers, Messrs. Morgan & Higgs, Heathfield-street, Swansea (1s. 2d. post paid). Mr. Arthur Keen, F.R.I.B.A., assessor		Nov. 6 .. [July 15
*Proposed new church, Monmouthshire		— .. —
*Proposed new hospital, Guisborough		— .. —
*Downham Market U.D.C. Housing Scheme		— .. —
*Scheme for building large residences, Cairo		— .. —

*Competitions when "warned" or vetoed by the R.I.B.A. are starred.

Royal Academy Exhibition, 1926.

Church at Hubli, Bombay.

Messrs. Lanchester, Lucas & Lodge, Architects

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Artists and Exhibitions.

Sir,—The proposal for an exhibition at which the pictures will be auctioned without reserve reminds one of the difficulties of artists. The fact that the public are shy, or indifferent of contemporary art has led to a "novel" experiment, arising, so we are told, out of the recent correspondence between Sir J. Duveen and the Prime Minister. The experiment to which I refer and through which it is hoped to promote the sale of artists' work is to take the form of an exhibition at the Spring Garden Galleries, to be opened shortly. As the promoters state, "Is it not possible to set on foot a movement that shall powerfully affect public opinion?" and this proposed exhibition is the result. I also think it is possible to affect public opinion, but it were better done another way. The scheme has the support of some prominent artists. *The Times*, in commenting on this proposal, doubts whether any permanent good can come of whipped-up enthusiasm under the inducement of cheapness, and I am inclined to agree with the view, doubting whether artists are well advised in such methods. Nor is this from any indifference, or want of sympathy for the hardships of artists, who are having a difficult time; but their difficulties should not lead them to lower the status of their profession, and to adopt methods which are of such doubtful advantage to the arts.

Reasons that operate to depress modern art are to be found in the hesitation of the public to follow the often extreme and somewhat vague doctrines which have been fastened on to contemporary work, and which tend to obscure what should be really a much simpler matter.

The public are in this matter wiser than the journalists, who are led by them; for the art critic is not free from offence in this matter, accepting too readily that doctrine of journalism that "vice is news and virtue is not." The public, wiser than the wise, wiser than such critics, has passed over on the other side, confused by so much jargon; but have, at the same time, failed to appreciate that just as the divorce court is not the principal and representative interest of our national life, so neither are preconceptions and practice which caricature the nature of art really representative of it to-day. The pity is that the public had come to think it was so, and are only now learning that what has pre-occupied the art critic is, after all, only a small thing blown out on the wings of journalism because "vice is news and virtue is not."

This is not to deprecate for a moment the experiments of artists made in the quietness of thought and conviction, revealing so much of what is most vital in art to-day. This, however, is the opposite of the gregarious loquacity and feeble unintelligible performance to which journalism has called so much attention, neglecting the former sincere and much better work. We ought, I think, to ask ourselves in presence of this new scheme, promoted by artists themselves, if it is likely to benefit art, or whether it represents a retrograde step, a descent from the proper self-respect and significance which should belong to it. I recall how in recent years the Anglican body in a moment of forgetfulness and in order to promote a great fund for Church expansion, set in motion a great publicity campaign through the advertising agencies. It was felt intuitively by great numbers of people that in such methods there was something altogether opposed to the very object they were supposed to serve and that should belong to such a cause, and that this view was justified appeared in the fact that the appeal failed and was discontinued. May we not, in our respect for the value of art, wonder whether something similar is to be observed in such propaganda, recalling to us, ere too late, that the nature of art transcends such methods and is not helped by them.

There is another view, however, though hitherto neglected, and which suggests for art a different kind of fostering, one which in their quieter moments many artists would commend. In the instance of this forthcoming exhibition we find artists themselves taking over the matter in order to promote their objects in their own way. Will they not some day take over the matter with more appreciation of their own ideals, and free from all saleroom taints? An exhibition in which the purpose is to make of it a sanctuary rather than a saleroom, an end harmonious to its inner being. Nor would this, taking counsel from the world for a moment, prove a less-paying concern. We see the hint of such an event in the isolated efforts of single artists to perfect this idea of the exhibition, from the time of Whistler. The single-handed effort is, however, not enough, and it must be done collectively. Sporadic efforts have already been made, but the want of co-ordination, the absence of any preliminary united scheme, led to failure, as in the case of the Arts and Crafts Exhibition at the Academy in 1916. I think that such an exhibition, promoted out of the enthusiasm of artists, to take over the matter themselves would reach results more advantageous than any arising out of the present exhibition.

If there is an artist who loves art, and this is rare, may I not, however, gently interpose the idea of a collective exhibition, undertaken by artists themselves, of the kind I suggest? A sanctuary is needed no less for art than for religion, for have they not the same parentage—the suffering and aspiration of mankind? And "in art everything is false which is not beautiful." Feeling, the enclosing sentiment of a real love, these are things needed no less in art than in life. How should I, therefore, describe such an exhibition save in the language of poetry, of which it should be the expression—the poetry of art? If this is mixing up the two I may yet be forgiven, seeing that there is a basis common to all that is lovely in life. I cannot surely offend the artist in claiming much more for his art than the promoters of this exhibition, in suggesting another way to meet his needs than a "continuous auction"—one which is not only a collection of pictures, but a sanctuary, a refuge, such as beauty affords to the believer.

When I was young an artist advised me to endeavour never to do anything which was not worth framing. I might add, for my own part, that we should never show anything we cannot show beautifully. There is much in this. Reputations need to be made in other ways—made for art rather than for artists; for the latter, reputation has become shop-worn, insignificant, and has ceased to convince. To make art illustrious we need not to hear too much about the artist. Shakespeare, regardless of fame, at fifty preferred to plant mulberry trees at Stratford.

The artist does not think. Artists have told me they ought not to do so, and that it will "sickly o'er" their production. I have my doubts about this teaching, though I observe that they do not; and yet I think they need to meditate more, though not in the Café Royal. Nor am I sure but that he is meditating now, asking himself those anxious, disquieting questions which announce change. Nay, but some will answer, without our modern methods, salesmanship, success, reputation, there will be no money. And yet how often do we find this success, as the world calls it, to be but failure—and failure, after all, success. The half-and-half artist, seeking his work too much, and so diverted and unable to do it, borrowing from commerce its methods, and atrophying his gift—how far below the commercial man! And though the artist must live, does he achieve with much ease to himself that result to-day? This proposed exhibition does not suggest it. Art is more likely to take its proper place in the heart of the nation when the heart of the artist inspires it.

I have always lived in a dream, as we all do; but it is better to live in a dream than a nightmare, and I fancy it is always one or the other. It may be that, as Anatole France has hinted, it is better to plant cabbages than to write books; but if we write books or paint pictures, let us do so with self-respect, trusting that to believe in the best is the likeliest way to reach it. Threatened men live long; and nature, which is careless of the good, leaves the artist to defend it. All this is impossible, do you say? It is the impossible that matters. It is the act of faith. The great adventure. The only thing that is, perhaps, worth doing; for, as has been said: "There is no poetry, and no art, except in desire for the impossible or in regret for the irreparable." For life is built on such experiences, which are love and pity. Out beyond the confused confines of our experience, shoreless on either side, we gaze backwards and forwards into the unknown. Here housed in momentary appearance, life acts its swiftly passing existence. Shall we, whose hopes are in each other, in that common life we have no choice but to share, offer less than will contribute some little flowers of hope and enjoyment as we pass over? Yes, I go the whole way, believing with him who said: "In art everything is false which is not beautiful." Art is love.

Reginald Hallward.

The Position of the Architect.

"If an offence come out of the truth, better is it that the offence come, than that the truth be concealed."—St. Jerome.

Sir,—It is absurd for the mere layman, "Ad Crumenam," who writes on "The Position of the Architect," to say that he is "deeply interested in architecture." His whole letter contradicts this statement. He is certainly candid and his nom de plume is well chosen. Money is his only standard, but he fails to realise that by employing a fully-qualified architect he is more likely to get full value for his money than by employing half-trained architects and builders. It is persons like "Ad Crumenam" who are retarding the progress of building as a fine art and who by mistaken notions of economy bring the whole building trades into disrepute.

From his remarks about civil and municipal servants one would suspect that he himself is a Government official. Until the architectural profession is recognised and protected by the Government in a manner similar to the medical and legal profession there is little hope of suppressing such methods as "Ad Crumenam" recommends. Some day when this mere layman builds a bungalow bungled by a builder or buys a bungalow which can be easily burgled by a burglar he may change his mind.

Absolvi Meam Animam.

Coal Residues in Concrete.

Sir,—The Association of Floor Constructors has had under consideration regulations which govern the construction of steel and concrete floors, and in particular the use of coal residues in concrete which is in any way in contact with steel. Having regard to the many cases in which this material has been clearly proved to have corroded the steel, often to the extent of entire destruction, the Association have decided to approach the Government and all County, Borough and District Councils to take steps to prohibit the use of coal residues in structural concrete in contact with steel.

The Association recommends that all clauses of Acts of Parliament, By-laws and Regulations which permit the use of coal residues in any concrete in contact with steelwork, or in structural concrete for fire-resisting floors and roofs, should be rescinded, and that the use of this material should be prohibited. In this connection it is worthy of note that the revised building regulations of other countries prohibit the use of this extremely dangerous material for the class of work mentioned.

W. G. Shipwright,
Hon. Secretary,
Association of Floor Constructors.
London, S.W.

SOCIETIES AND INSTITUTIONS

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

Notes from the Minutes of Council, April 19, 1926.

Architectural Education.—On the recommendation of the Board of Architectural Education the Council has made the following decisions :—

Education of Architects' Pupils.—A suggested outline course of study for the guidance of architects who accept pupils in districts where professional school education is not available was approved, together with two lists of books to be obtained, one by the pupil and the other by the architect. Copies of the outline course and lists of books are to be inserted in each R.I.B.A. Form of Articles of Pupilage sent out by the R.I.B.A.

Partial Exemption from the Intermediate Examination.—It was decided that partial exemption may be granted to students who produce evidence of having passed approved examinations in certain subjects in Schools of University rank, viz., The General History of Architecture; The Specialised History of Architecture; The Calculations of Simple Structures.

Lectures on Architecture for Working Men.—A course of four evening lectures on Architecture and the Building Crafts (with lantern slides) for working men is to be given at the R.I.B.A. in October and November, 1926.

R.I.B.A. Prizes and Competitors Overseas.—A scheme has been approved for holding the Preliminary and Final Competitions for the Tite Prize and the Soane Medallion or Victory Scholarship in the Dominions so as to enable overseas students to take effective part in the competitions. Arrangements on the same principle will be made for the Owen Jones Studentship.

Specialisation and its Effect on Craftsmanship.—The Council appointed three representatives to serve as additional temporary members of the Architects' and Builders' Consultation Board for the purpose of holding an inquiry into the question of specialisation in the building trade and its effect on craftsmanship.

Lectures for Architects in Practice.—On the recommendation of the Science Standing Committee the Council approved a scheme for a series of lectures to enable practising architects (1) to revive forgotten knowledge; (2) to acquire modern knowledge, and requested the Board of Architectural Education to formulate detailed proposals for carrying the scheme into effect.

Building Trades' Operatives.—The Council accepted an invitation from the Committee of the National Federation of Building Trades Operatives to appoint a small committee to meet representatives of the Federation to discuss problems of mutual interest which periodically arise in the industry.

Professional Defence.—A scheme prepared by the Practice Standing Committee for the establishment of a Professional Defence Union for Architects was provisionally approved.

Riverside Ground at Twickenham.—The Council received the warm thanks of the Twickenham Urban District Council for the assistance rendered by the R.I.B.A. in connection with the effort to preserve the amenities of the Riverside Ground at Twickenham.

The Hampshire and Isle of Wight Association of Architects.—A revision of the rules of the Association was approved under By-law 82.

Composition of Subscriptions for Life Membership.—The Council approved a scheme for the composition of subscriptions, and directed that it should be submitted to the General Body for consideration.

Annual Report, &c.

The draft Annual Report of the Council and Standing Committees for 1925–1926 was approved, together with the Ordinary and Trust Funds Draft Revenue Accounts and Balance Sheets for the year ended December 31, 1925, and the Rough Estimate of Ordinary Income and Expenditure for 1926.

Grants.—The following grants were made: £50 to the Royal West of England Academy School of Architecture for the year 1926; £100 to the Board of Architectural Education for the provision of additional studio text-books for use by the students of schools and allied societies which have an inadequate supply of text-books, such grant to be for the period of one year; £100 to the British Engineering Standards Association for the year 1926.

Wages Slips on Tenders.—On the recommendation of the Architects and Builders' Consultative Board, the Council agreed to recommend, in a modified form, the arrangement for adding wages slips to tenders for the period ending March 25, 1927, and gave notice to terminate the arrangement on that date.

Hon. Auditors.—The Council nominated Mr. A. H. Goslett and Mr. F. J. Toop as Hon. Auditors for the session 1926–1927.

The Elmes Testimonial Fund.—Mr. G. Hastwell Grayson was reappointed a Trustee.

Applications for Membership.—The following applications for Membership (Election, June 7, 1926) were approved: As Fellows, 43; as Associates, 16; as Hon. Associates, 2; as Hon. Corresponding Member, 1.

Applications for Election as Licentiates under Section III (f) of the Supplemental Charter, 1925.—Three applications were approved.

Applications for Election as Subscribers under Section VI of the Supplemental Charter, 1925.—Two applications were approved.

Resignations.—The following resignations were accepted: A. Paul MacAlister (F.), G. Leslie Head (A.), W. J. Leahy (A.), R. A. Walter (A.).

The following events of the R.I.B.A. season have had to be postponed until further notice owing to the General Strike: The British Architects' Conference, June 14 to June 19; R.I.B.A. Banquet, at Guildhall, June 17; the Presentation of Royal Gold Medal for Architecture to Professor Ragnar Ostberg, June 17; the R.I.B.A. General Meeting and Lecture, by Mr. H. S. Goodhart-Rendel, on "The Work of the late Sir Thomas Graham Jackson."

LEICESTER AND LEICESTERSHIRE SOCIETY OF ARCHITECTS.

The fifty-third annual general meeting of this Society was held on April 28, at the Church Rooms, Leicester. Mr. E. T. Allcock, F.R.I.B.A., President, was in the chair, and twenty-eight members were present. The proceedings, which were formal, commenced with light refreshments. The Hon. Secretary, in presenting the Council's report, stated that the membership now numbered 140, an increase of ten during the past year. Among its other activities, the Council had sent a strong protest to the L.M. & S. Railway Co., against the disfigurement of the London Road by unsightly enamelled iron advertisements fixed to the bridge. The hon. librarian reported that the Society's library now contained over 300 volumes, forming a valuable asset to the Society.

Mr. E. T. Allcock was re-elected president; Mr. A. F. Bryan, hon. treasurer, and Mr. C. F. McL. Keay, hon. secretary.

The following were elected to serve on the Council for the ensuing year:—

Full Members: Messrs. J. T. Burt, A. H. Hind, W. Keay, G. Nott.

Associate Members: G. A. Cope and T. W. Haird.

The Society's prize-winners were:—

President's Prize: Mr. E. Thompson.

Measured Drawing: First Prize, Mr. E. C. Mount; second prize, Mr. W. E. Fancott.

Special Prizes: Messrs. R. K. Kinton & W. Worth.

Measured Drawing Prize (for full time students at the Leicester College of Art): Mr. W. E. Marston.

Three new members were elected and the meeting concluded with a vote of thanks to the President, officers, and committees for their services during the past year.

COPYRIGHT

ALTERATIONS BY PURCHASERS.

THERE have been very few decisions on section 7 paragraph (4) of the Copyright (Works of Art) Act, 1862, so we may note the recent case Preston *v.* Raphael Tuck and Sons, Limited (*Weekly Notes*, April 24, 1926). The plaintiff was the author and artist of two original drawings, of which the defendants had purchased the copyright, and reproduced them unaltered in the form of calendars in March, 1921. In 1924 the defendants published and offered for sale as calendars reproductions of the two drawings, but with some alterations. According to the report, in each case parts of the original design had been omitted, the shape of the drawings had been altered from square to round or oval, and the colour of the background had been changed, but the works as altered did not bear the plaintiff's signature. The plaintiff brought this action under section 7 of the Copyright (Fine Arts) Act of 1862, claiming an injunction and penalties, and the case turned on the fourth provision contained in that section. "Where the author or maker of any painting, drawing or photograph, or negative of a photograph, made either before or after the passing of this Act, shall have sold or otherwise parted with the possession of such work, if any alteration shall afterwards be made therein by any other person by addition or otherwise, no person shall be at liberty during the life of the author or maker of such work, without his consent, to make or knowingly to sell or publish, or offer for sale, such work or copies of such work so altered as aforesaid, or of any part thereof, as or for the unaltered work of such author or maker."

The question in the case was really whether the works in question had been sold or published "as or for the unaltered work" of the plaintiff, for the Court held the alterations were such that if they were published as the unaltered work of the artist there would have been a breach of the section. Her name did not appear in connection with this publication, but she contended that her style was so distinctive in character that anyone seeing the altered works would recognise them as the plaintiff's work and attribute them to be her work unaltered.

The Court found that there was a measure of distinctiveness in many of the plaintiff's works, but that would not suffice to bring the case within the section; there must be a selling or publication in conditions under which to the knowledge of the seller or publisher there was made either expressly or by implication a representation that the work sold or published was the author's unaltered work, and here there was no express representation, and the Court did not consider that any such representation could be implied from the mere fact that to some minds the altered works would suggest the plaintiff's name.

The only other case the Court said on this point was Carlton Illustrators *v.* Coleman & Co. (1911. 1 K.B., 771; *The Builder*, November 12, 1910). There an artist had produced a fine line drawing for the defendants to be used by them as an advertisement. The defendants had enlarged and coloured the drawing without the plaintiff's consent, and had published the same with the plaintiff's name attached, and they were held to have committed a breach of this paragraph of the section. In that case there was a distinct representation that the work was that of the artist, so it has no bearing upon the point decided in the case under consideration as to what is an implied representation. It still appears very difficult to say in the absence of the publication of the name what would amount to an implied representation, but we notice that the learned judge said in the case before him that even if the plaintiff's name had been suggested it would be difficult to see why the inference would necessarily be that the works were the unaltered works of the plaintiff in the case of an article of commerce such as a calendar.

AN UNSPOILED HAMLET

BERRICK PRIOR, OXFORDSHIRE.

Among the few remote, unexplored and nearly untouched villages still remaining to us are the charming twin settlements known as Berrick Salome and Berrick Prior, in south Oxfordshire, approachable from the Dorchester-Benson road only by winding country lanes. The rustic hamlet of Berrick Prior, thus snugly concealed from the beaten track, consists merely of an irregular cluster of old farmhouses and cottages—of brick, of stone, or timber-framed—and on the verge thereof, approached along an inconspicuous lane, is the strange little hamlet church.

In the thirteenth century, when it was known apparently as Berewike, it was served by a chaplain; in early Reformation times it was evidently a mere hamlet or chapelry in the larger parish of Chalgrove to the north-east—of battle fame—as the registers of both were kept together till the beginning of the seventeenth century. At the present day the church serves for the parish of Berrick Salome, itself a tiny settlement, of which the parochial boundary extends just far enough north to contain the church and Ivyhouse Farm; the remainder forms a southern spur of Newington parish which, paradoxically enough, separates it from Chalgrove, by whose rector it is still served as a united benefice.

Before describing the structural features of the hamlet, a relic possibly of very ancient occupation must be accounted for. Close to the church, and running eastward to Brightwell Baldwin, and so by road to Watlington, is an old winding lane known locally as "Hollandtide Bottom," and there is a continuation westward at an angle, leading by footpath to Warborough. This has long been traditionally known as a British or (as some say) a "Roman" road; it is too crooked to suggest the latter date, but it is possible that it may be earlier, and it may have been connected with, or even formed part of, the Icknield Way. It is known that this ancient trackway, starting from Icklingham in Suffolk, branches just before entering Oxfordshire into an Upper Way, along the north-west slopes of the Chilterns, and a Lower Way skirting the foot of that range. The course of the former, fairly clearly established, runs just above Watlington, and further south passes Ewelme, approaching the Thames near Crowmarsh and crossing that river probably at Streatley. The lower way, however, becomes uncertain near Aston Rowant, several miles before Watlington is reached; it can perhaps be identified with broken lengths of lane at Lewknor and Watlington, eventually merging probably into the upper way near Brightwell Baldwin. Hollandtide Bottom, however, might form the continuation of this track, or else a western branch, diverging about Pyrton and so through Cuxham, Brightwell, Berrick and Warborough. Where, if anywhere, this track crossed the Thames is unknown; it is interesting to note that the Icknield Way, according to the Ordnance Survey maps, recurs along the northern slopes of the Berkshire Hills, which would have meant a sharp northward bend for the Streatley route, and may rather have been part of the Berrick track, which would then have continued direct across the river by Benson and past Brightwell and Hartwell, Berks. The matter needs further investigation.

If thus established in the British period the track would subsequently have been linked up by the Romans with the road from Dorchester over the Thames on its way southward to Streatley.

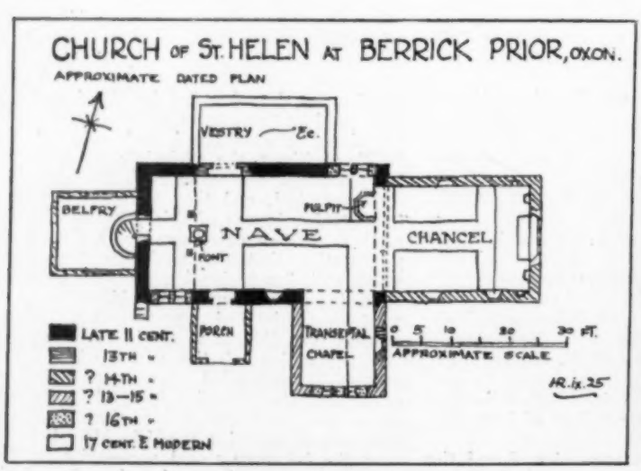
A little must be said as to the domestic remains of Berrick Prior. Among the earliest of these are two small cottages, which—typical of the remoteness of the place—have no names or numbers, and have to be identified by the names of the occupiers. They are of primitive half-timber work, and were once lit by small leaded casements, though these have been mostly replaced by wood casements. These may have been built earlier than the other buildings, but not necessarily so, as a more primitive tradition sometimes survives for cottages after more developed modes have been employed elsewhere. The oldest example of a distinctly dateable type is the pair of stone cottages across the pond; their tall, grouped windows under square label and their general treatment proclaim them to be of early seventeenth-century date (Jacobean) or about that time. Ivyhouse Farm and other houses near seem to be of Georgian type, but they may have been re-faced over older work.

But the church, a unique little specimen, is the chief subject of this article. Approached from the south-west, this building appears to be a typical example of the Elizabethan period, and if this were so it would be of great value, for in that curious period of transition from the late Gothic to the Classic style few churches were erected; but, although Berrick church proves to be of much earlier origin, it was sufficiently transformed in the Jacobean period to be of particular interest in this respect. It will be well to describe the various features in order of date, as this will form an outline history of the building.

Though some pottery has been found here which testifies to a Romano-British civilisation about 1500 years ago, there appears to be no evidence pointing to a church being here before the Norman Conquest of 1066; the oldest features, though simple in treatment, seem too developed in technique to be work of "(?) 1000 A.D.," as is suggested in the table of dates hung up in the church—*i.e.*, to be Anglo-Saxon work—and are probably early Norman work of the late eleventh century. This date is confirmed by that of the first-known priest (1087), which suggests that the church was first built in the time of William Rufus, *i.e.*, that its oldest parts are about 850 years old. These earliest remains (Norman style) consist of: (1) the entrance (south) doorway, from the porch, round-headed externally and plainly treated, unmoulded, with a simple chamfered impost, and a segmental "rere-arch" on the inside, to allow the door to open; (2) the easternmost south nave window, also round-topped and deeply "splayed" or cut back diagonally in the thickness of the wall, but much restored; (3) the remarkable font, tub-shaped and slightly tapered downward, with intersecting rings treated with bead ornament, very typical of the period and probably a survival of the "unending knot" or interlacing ornament introduced into Anglo-Saxon work from Northumbria in early missionary times. (4) Probably all the nave walls are Norman, as they would have been disturbed only where windows, doors and the side chapel were broken through them. We may picture, then, the church of eight long centuries ago, with the existing nave, windows all round it like the present south one, and a short chancel similar in aspect.

The little sanctuary probably served the humble needs of this tiny settlement for a century and a half, until early in the thirteenth century, when two insertions appear to have been made: (1) the north nave doorway, simply treated, but pointed in form, in contrast to the Norman one—indicating the Gothic style, which prevailed from this time till that of Henry VII. (2) A small "lancet" or tall and narrow window, deeply splayed, now serving as the east window of the southern chapel or rudimentary transept. This is an enigma in stone, for at first sight it appears to date the chapel itself; but the chapel in reality is probably later, and the window was merely built in here after removal from the nave wall destroyed to make room for the chapel—a trap for the unwary antiquary. Its small size suggests even that it may have been the "low side window," or "sacring window," which was usually placed in or near the chancel so that (as now generally held) the sound of the sacring bell could be heard outside at the most solemn moments of the Mass. The ordinary Norman windows would still do duty to light the church.

Several generations came and went, and apparently in the reign of Edward II or III



Figs. 1 and 2.—Plan and View of Exterior from the South-West.

Berrick Prior Church, Oxfordshire.

Fig. 3.—Font and Interior, looking North-East.

Berrick Prior Church, Oxfordshire.

the chancel was rebuilt or transformed, much as we see it now. The east window over the altar, of three separate "lights," has a very simple form of intersecting tracery common about the year 1300, like those in the south aisle of Dorchester church, but not cusped; but the design is very bare, and it looks like a seventeenth-century restoration. More definitely traceable to the fourteenth century, however, are the charming little cusped windows in the chancel, one in the north and two in the south wall, of "ogee" form.

The western belfry or wooden tower, of doubtful date, is supposed to have been erected early in the fourteenth century; according to photographs taken in 1889, hung up in the vestry, it was originally of plain weather-boarding, and this was carried up the whole height, with horizontal apertures at the top to release the sound of the bells; a flattish pyramidal roof or spirelet, as now, crowned the tower. The south porch, of uncertain age, is of timber, since transformed.

To about the same time, also, belong two internal fittings—the foliated single piscina in the south wall of the chancel, with "dish" or sink intact where the holy water used for rinsing the priest's hands at the Mass was poured away; and the oblong "aumbry" or cupboard for the sacred vessels in the north chancel wall, with a "rebate" or groove all round for a shutter, about the same date. Somewhere about the same time, perhaps, the three moulded corbels or brackets were affixed to the walls, probably to support statues of patron saints—one to the south of the east window, one to the north, and one in the side chapel; but these are of uncertain antiquity.

The hamlet church, thus equipped for worship, served its sacred purposes faithfully, we must assume, till shortly before or at the time of the Reformation, *i.e.*, for a further interval of six or seven generations of men, who successively were born, lived, worked, and passed on. The next features of the church are of uncertain date, and consist of three groups of windows—one group in the south nave wall, one in the north nave wall by the pulpit, and one high up in the west gallery. Each group is of two "lights" or openings, headed by similar four-centred or Tudor arches worked in 2in. brick, giving a very colourful and charming effect. These window heads and the brick mullions are evidently Tudor work of the early sixteenth century, four centuries before our time, but the sides or jambs supporting them may be remains of mediæval windows, a century or more earlier. The south chapel window, with three arched lights, is similar, with a rectangular label moulding.

At the Reformation, then, we may picture the village sanctuary, much as it had been in the days of mediæval worship, but probably stripped of crucifix and beam, and of the rood screen if it ever had one, and consecrated to the simpler services of the Protestant dispensation, but losing nothing of its rustic quietude, and gaining in external richness by its brick-work windows.

Still, this relatively undisturbed condition did not last long. About a century later it became necessary, probably through neglect and decay, to make substantial alterations to the fabric. The old roof of the nave, of which only a few timbers seem to remain, was replaced by a typical early Renaissance roof of queen-post type, and a complex timber truss marked "1615," with curved and inverted braces framed over the chancel beam, which now alone divides nave from choir—no chancel arch exists. The chancel roof, boarded and panelled in modern times, is probably of trussed rafter construction, of unknown date.

Apparently about this time also—the Jacobean period—the dormer windows were added in the roof, to give more light to the middle of the church; originally, as shown by the old prints, they were simple two-part lattice casements like the cottage windows of the time, and were gabled. The congregation seems to have grown larger, and in 1676, as shown by the date wrought on it, the curious western gallery was inserted, another feature typical of the time; it is approached by a semi-circular stone turret in the middle of the west nave wall, perhaps earlier, and is fronted by an open balustrade of oak. In the seventeenth century also, or later, the nave was seated with simple framed benches, which still remain, but have been cut down to half their height for present-day use. The framing of some of the panels merely has tenoned joints, but some are moulded, with mitred joints; the former may be earlier. The interesting balustraded pulpit is probably coeval.

Another period of inactivity seems to have set in, until in our industrial age, to wit in 1890, came great changes, partly consequent upon the dilapidated state into which the fabric then had fallen, but exceeding real necessity. The belfry was stripped of its weather-boarding, which was renewed only at the middle stage; louvre windows were inserted at the top with round arches, round-headed windows have been inserted in the ground story flanked by similar blank panels, and ornamental hanging tiles occur intermediately. Porch and dormers were not merely repaired, but elaborate traceried woodwork of Perpendicular type was substituted; the chancel was refurnished, a vestry was added on the north, and much stonework was renewed, under Mr. Mowbray, an Oxford architect. The general aspect was much altered. During the restoration some traces of wall-painting and various antiquities were discovered, so says the record, but what became of these is not known. This was not all; in 1909 further repair is said to have been done and the six bells were re-hung.

Little more can be added. There is one fragment of old glass—a quarry of "grisaille," or pale green glass, probably of the fourteenth century, in the chapel "lancet." The names of past priests, of which a list is hung in the church, make an interesting study, and the extant registers date back to 1609.

Undoubtedly, in spite of all its vicissitudes, this rustic sanctuary preserves much of its ancient charm, and is a mute reminder of the sacred traditions of village life, and of those latent departments of our thought which are perhaps supremely those to which that sentiment which redeems the commonplace may be justly applied to inspire and complement, rather than to limit or harm, the general practicality of life. To those who have been privileged to have been reared in the old-time farm-houses and cottages which are clustered around the church, it is the hub of their life and growth, and the centre around which revolve the fragrant memories of early days, and in which are forged the invisible links of the chain of friendships; and when others are allowed to visit with them for the first time these places of old association, they too feel inevitably bound by the same ties.

ARCHITECTURAL ASSOCIATION OF IRELAND.

Reviewing the year's work of the Architectural Association of Ireland at the annual general meeting of the Association, held at 8, Merrion-square, Dublin, Mr. W. A. Dixon, M.R.I.A.I., who presided, referred to "a somewhat drastic change on the educational side"—the inception last year of an arrangement with the authorities of University College, Dublin, whereby students not actually taking the college course were enabled to take some of the lectures and have free access to the studio, where they would have the advice and help of Mr. Frank Scarlett, studio master. The results of this arrangement, Mr. Dixon intimated, would be known in June. At the conclusion of his address, Mr. Dixon, as outgoing president, formally installed Mr. W. S. Keatinge as president for the coming year.

The twenty-ninth annual report of the Committee stated that 16 new members had been elected during the year, the membership now standing at 137. Of the 13 candidates who presented themselves for the Studentship examination of the Royal Institute of Architects of Ireland, four were successful.

Mr. Bernard Joyce was elected Hon. Librarian in place of Mr. Leask, retired.

The Architectural Association prize of 20 guineas for architectural drawings was not awarded this year. A consolation prize of £5 5s. was awarded to Miss Carroll. Mr. Thomas F. Carery is awarded the "Institute Prize" of 10 guineas. The Downes Bronze Medal, with £2 2s., was awarded to Mr. F. J. Ryan.

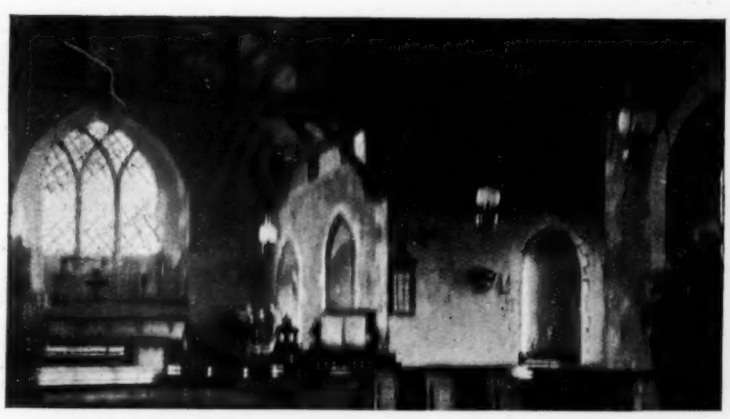


Fig. 4.—Interior, looking South-East.

Berrick Prior Church, Oxfordshire.

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ILLUSTRATIONS

New Reptile House, Zoological Gardens.

This drawing shows the entrance elevation to the new Reptile House at the Zoological Gardens. It has a symmetrical plan with public entrance in the centre of the northern front, with four pavilions, two on either side on each flanking elevation. As it is arranged to be top-lighted, with no windows outside, the exterior is simply treated with grey Crowborough brick piers, marking the roof trusses, and large panels of plaster between the Stancliffe stone plinth and dressings, &c. The roofs to the pavilions and entrance, &c., are in green glazed tiles by Messrs. Ames & Finnis. The works are being carried out by Messrs. Prestige & Co., of Pimlico, and the architect is Mr. E. Guy Dawber, P.R.I.B.A.

Lloyds Bank, Ashford, Kent.

This building is erected in brick and stone, the facing bricks being multicolour on the first and second floors, and picked for uniform red colour on the ground floor. The cornice is of wood and the roof tiled. The contractors are Messrs. D. Godden & Son, of Ashford, Kent, and sub-contractors are as follows: Ashford and Naccolt Brick & Tile Co., bricks and roofing tiles; Bath & Portland Stone Firms, Ltd., stonework; Young & Co., steelwork; Fredk. Hayden, Ltd., heating; Jacob, White & Co., electrical work; Carter & Co., tiled floors; Henry Hope & Sons, metal casements; Coalbrookdale Co., Ltd., rainwater goods; George Jennings, Ltd., sanitary fittings; Gilbert Seale & Sons, Ltd., stone carving. Mr. Horace Field, F.R.I.B.A., is the architect.

House at Winchmore Hill.

This house is situated in Broad Walk, Winchmore Hill, and is built on a site which was formerly part of the park to a large mansion, and has some fine matured trees which have been retained. The tile hanging to the exterior has been omitted and the general facings of multicoloured bricks carried up. The roofs are covered with hand-made roofing tiles. The interior of the house is very simple, with distempered walls and painted woodwork. The large room has been designed for a music room with a recess for an organ, the ceiling over the north end of the room being raised above the general height of the ceilings. The contractors were Messrs. McLaughlin & Harvey, Ltd., of London and Belfast; casements and leaded glazing were by Messrs. C. E. Welstead, Ltd., Croydon, and the grates and mantelpieces by Messrs. Bratt, Colbran & Co., London. Mr. T. M. Wilson, F.R.I.B.A., is the architect.

Fashions Fair Exhibition.

This Exhibition was held in three of the large exhibition buildings at Shepherd's Bush. The buildings were arranged in the form of avenues connected by large circular rotundas. The whole of the exhibition stalls were designed with a somewhat uniform architectural treatment, the rotundas and avenues being covered with velaria. The view reproduced is of one of the rotundas showing the velarium draped in a tent formation. This Exhibition was the first occasion when the entire stall treatment was made uniform, and formed a precedent for the larger British Empire Exhibition which followed immediately. The colour treatment was as follows:—The architectural features were finished in a warm ivory tint, all enrichments being finished in gold. The velaria was formed of old gold and ivory stripes, and the flooring had a stronger note of cinnamon, the whole producing a satisfactory effect of unity in colour treatment. The main contractors were Messrs. Elliott, Ltd. Mr. W. Braxton Sinclair, F.R.I.B.A., was the architect.

The Usher Gallery, Lincoln.

This gallery is being built from a bequest of the late Mr. Usher, of Lincoln, to form an art gallery and to house the collection left by him to the city. The materials are Ancaster stone and thin red Nottingham sand-faced bricks. The contractors are Messrs. Wm. Wright & Son, Lincoln, and the following are sub-contractors: Kleine Fireproof Floor Co. (floors), Dent & Hellyer (heating and hot water), James, Keith & Blackman (ventilation), Wm. Aumonier & Son (carving), G. & A. Brown, Ltd. (ornamental plaster work). Sir Reginald Blomfield, R.A., & Son are the architects.

House at Thames Ditton.

Built for Mr. Frank G. Rye, M.P., this house has brick facings from the Shelley Brickfield, near Horsham. Hand-made roofing tiles are from the Binfield Brick & Tile Works. Heating is by Messrs. Broadhurst Craig & Ching, and sanitary fittings by Messrs. John R. Venning & Co., Ltd. The garden work has been carried out by Messrs. Card & Son, of Thames Ditton. The builders are Messrs. Limpus & Son, Kingston Hill. Messrs. Nicholas & Dixon-Spain are the architects.

"Cuckoo Pen," Marlborough.

"Cuckoo Pen" is a small house built to fit an existing garden. The drawing reproduced is only a first sketch, which was somewhat modified in execution. The materials used in the building are: Walls, 2 in. dun-coloured bricks with red dressings; roof, bright red sand-faced tiles; windows, lead glazing in wood frames; bays, cast lead. The general contractors are Messrs. F. Rendell & Sons, Ltd., Devizes. The windows are being made by Messrs. Wenham & Fowler, of Croydon. The internal doors were executed by Drystone, Ltd., and the flooring of offices is being done in "Decolite," supplied by Bell's United Asbestos Co., Ltd. The building cubes at 1s. 7½d. Messrs. Ernest Newton, R.A., & Sons are the architects.

Trinity Hall, Cambridge.

The new building illustrated connects two existing blocks which vary somewhat in style and colour of materials, and the design aims at a result which shall harmonise with both to the greatest extent possible, adhering to a simple type of the brick and stone buildings of the seventeenth century. A gatehouse is formed over the old archway in Garret Hostel-lane. This archway was moved from its original position opposite the University Library during the last century. The foundations will rest on a reinforced concrete raft. The walls will be of red bricks with Weldon Stone dressings, and the roof will be covered with red sand-faced tiles. The contractor is Mr. William Sindall, of Cambridge.

The raft will be carried out by Messrs. Stuart's Granolithic Co., Ltd., and the floors will be constructed of tubular concrete blocks by the same firm. The steel casements will be made by Messrs. Burt & Potts, of Westminster.

Messrs. E. B. Hoare & M. Wheeler are the architects.

Other Illustrations.

We also illustrate the following Royal Academy Drawings: Church at Hubli, Bombay (Messrs. Lanchester, Lucas and Lodge, architects); Memorial to the Missing, Faubourg D'Amiens, Arras (Sir Edwin L. Lutyens, R.A., architect); Model of new Head Office for the London Life Association, King William-street, E.C. (Mr. W. Curtis Green, F.R.I.B.A., architect); Winchester College, Memorial Cloisters (Mr. Herbert Baker, A.R.A., architect).

A BRIDGE-BUILDING PROBLEM

Mr. F. O. Marchant, A.R.I.B.A., writes as follows:—

"You publish at times a competition for juniors and students. I hope this one, which has a true history, will interest you.

"An infantry battalion was encamped beside a canal. It was necessary to cross the canal daily one or more times. The only existing bridge was a mile away down stream. The commanding officer applied for materials to construct a footbridge close at hand to save a daily march of 4 or 8 miles. The materials arrived, and consisted of: One old flat bottom boat of heavy timber; 10 railway lines 22 ft. long, about 8 in. by 2½ in.; two timber railway sleepers 9 ft. long by 9 in. by 5 in.; 150 ft. of old rope; a few wooden pegs or stakes; and six empty packing cases of 1 in. boarding.

"The intention was to moor the boat in midstream and lay the rails five abreast from each bank to the boat, and cover them with the packing case boards, reeds and date palm, for use of men only. The earth banks were very hard and dry, standing 8 ft. above the water line, and were to have been ramped down to bridge level.

"The materials arrived late at night. In the morning all had disappeared. The old boat had sunk, was stuck fast on the bottom of the canal, and could not be moved or used in any way. However, the rails, sleepers, rope and boxes were recovered. On the third day after this the commanding officer rode over the bridge on his horse. No new material was obtained and simple tools only were available, such as saw, chisel, hammer, pick and shovel. How would you have built this bridge? Give plan and sections to ¼ in. scale, and a short description of the construction.

"I built the bridge and have the original sketch, which was used as a working drawing, and a photograph; the bridge was in daily use by men, horses and mules."

BOOKS RECEIVED.

SELLING CONSTRUCTION SERVICE. By Charles F. Dingman. (London: McGraw-Hill Publishing Co., Ltd.) Price 12s. 6d.

MODERN CABINET WORK. By Percy A. Wells and John Hooper. (London: B. T. Batsford, Ltd.) Price 25s. net.

INTERNATIONAL TOWN-PLANNING CONFERENCE, New York, 1925, Report.

BUILDERS' ESTIMATES AND PRICING DATA. By Henry A. Mackmin. (London: Chapman & Hall, Ltd.) Price 9s. 6d. net.

EMPIRE FORESTRY JOURNAL, Vol. 4, No. 2. (London: The Empire Forestry Association.) Price 4s. net.

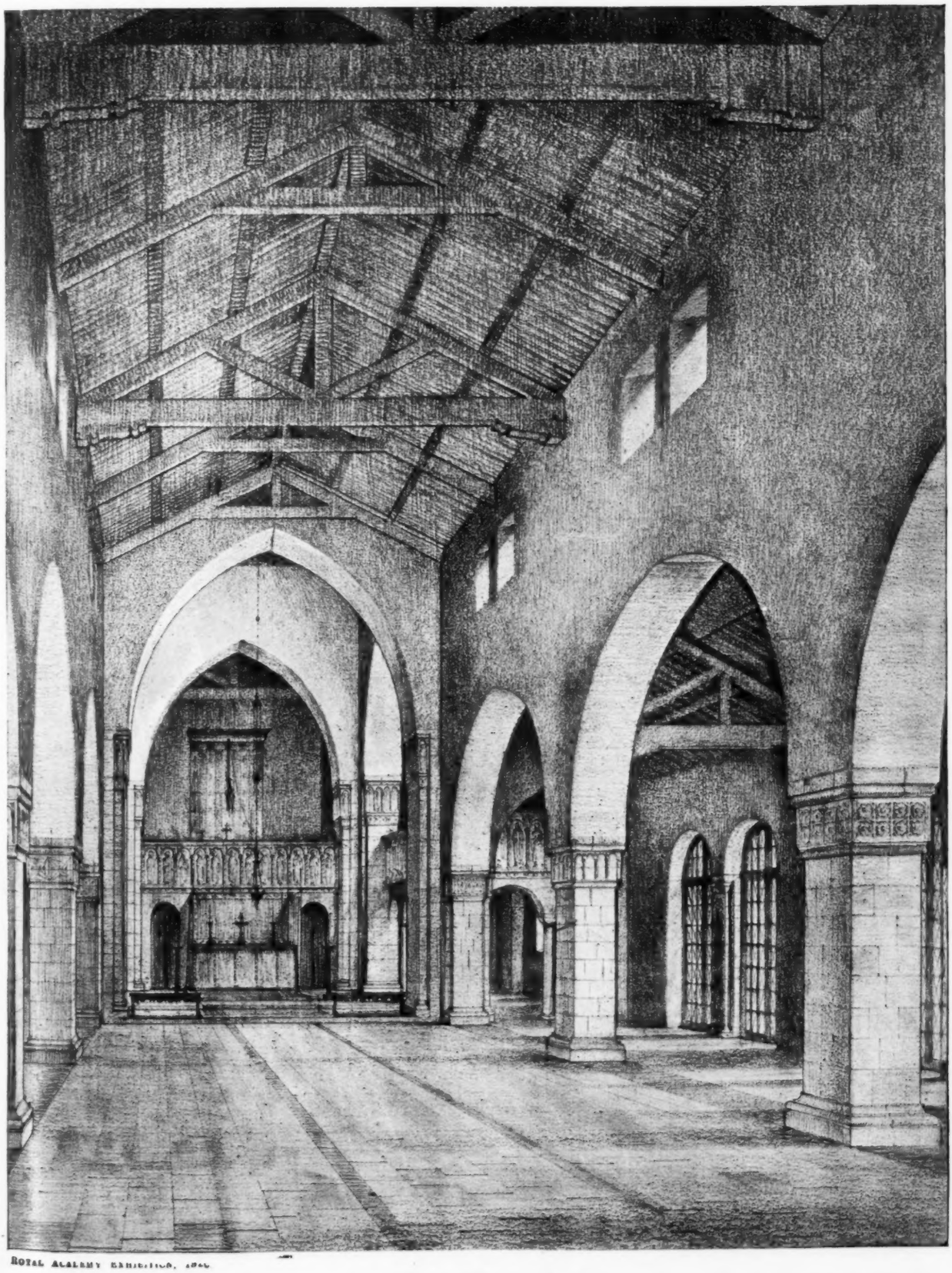
THE INSTITUTION OF ELECTRICAL ENGINEERS (Scottish Centre), Session 1925–1926.

SURVEYORS' TABLES. (London: Metchim & Son.) Price 2s. 6d.

SOME REMINISCENCES: SEVENTY-FIVE YEARS' WORK IN CIVIL ENGINEERING. By Professor Henry Adams. (London: The Institution of Structural Engineers.) Price 2s. 6d. net.

DISCOURSES ON THE EMOTIONAL SOURCES OF TASTE. By George H. Jaques. (Dublin: 93, South Circular-road, Rialto.) Price 2s. 6d.

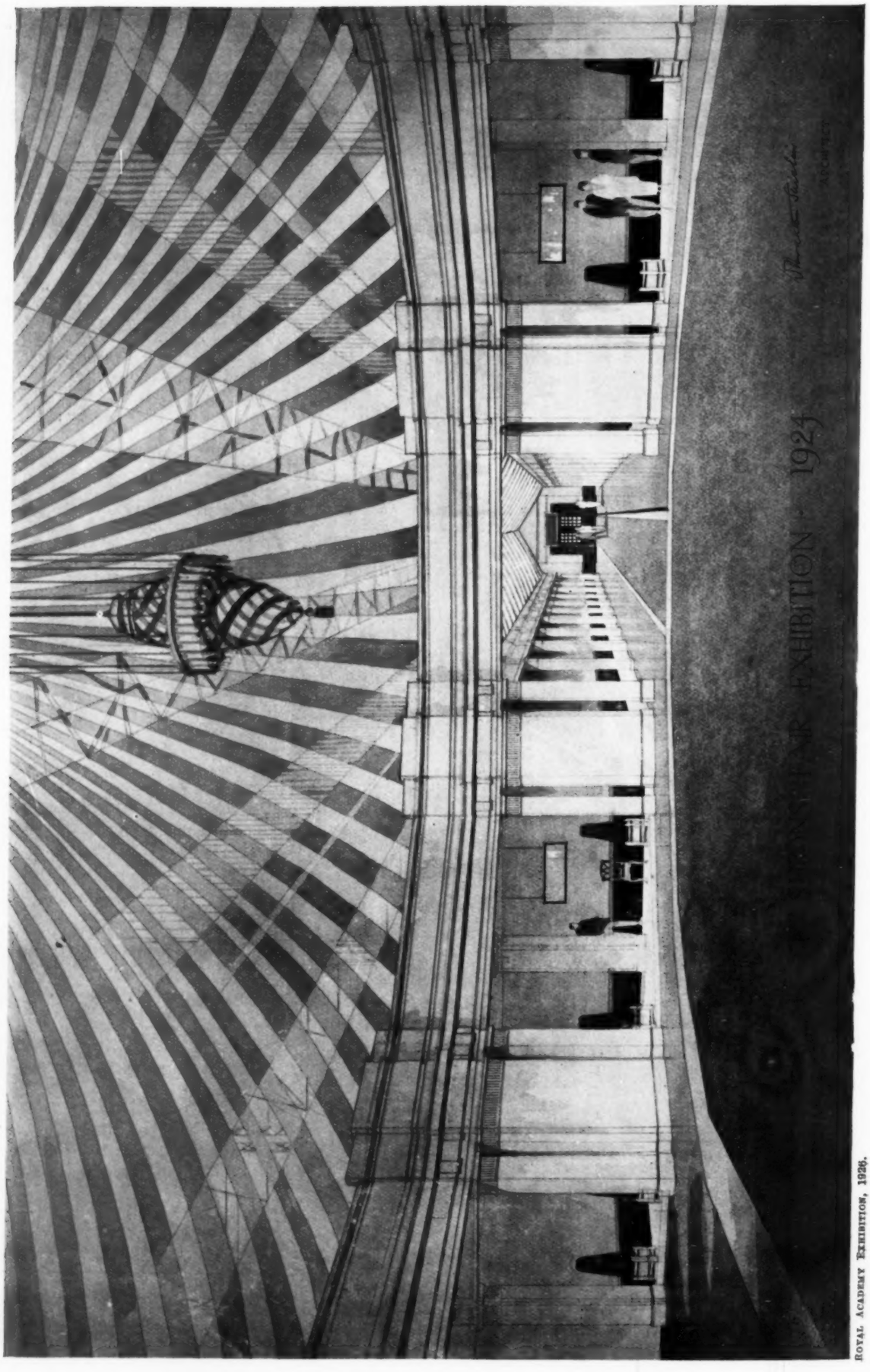
THE SMOKE PROBLEM OF GREAT CITIES. By Sir Napier Shaw and John Switzer Owens. (London: Constable & Co., Ltd.) Price 22s. 6d. net.



Royal Academy Exhibition, 1926

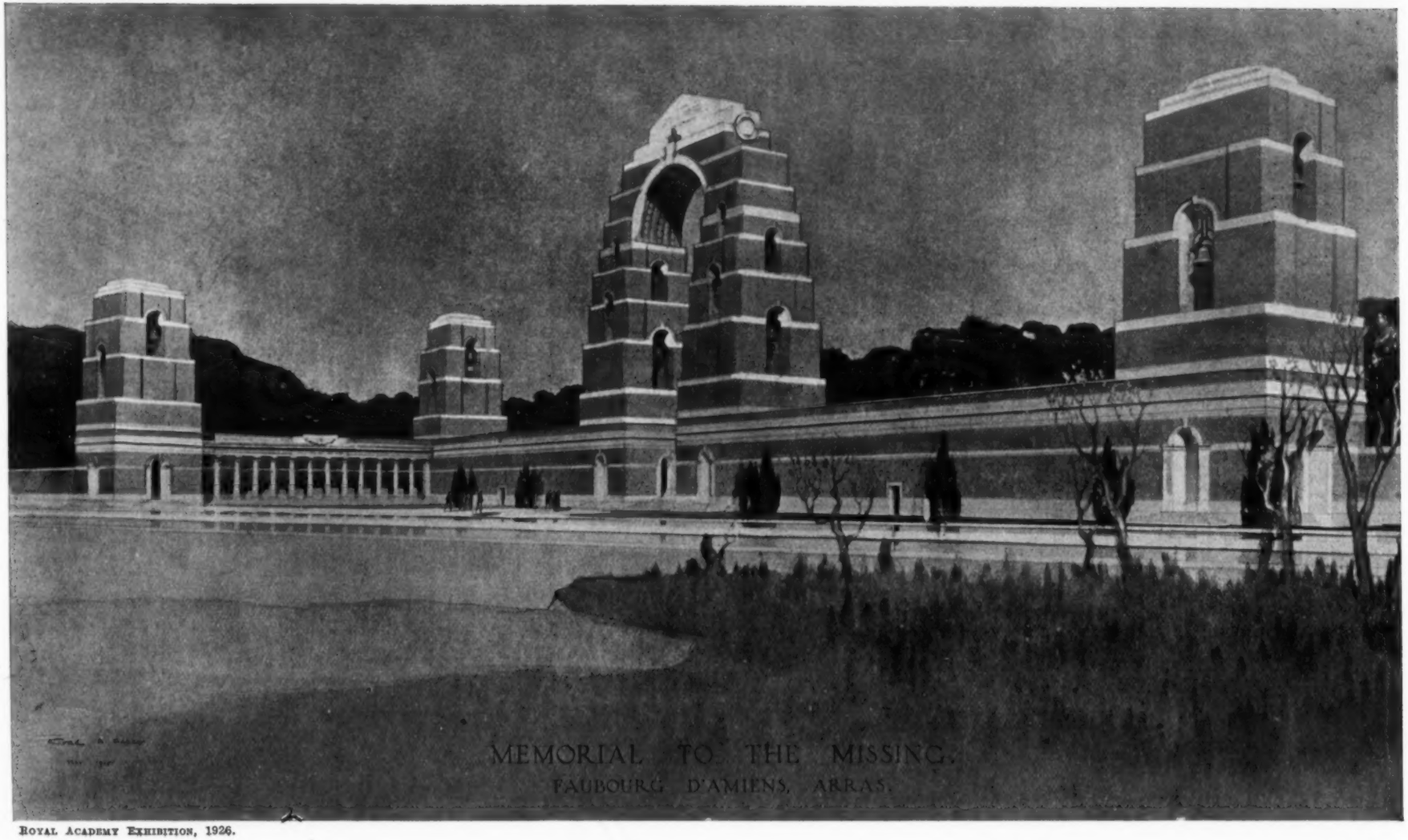
Church at Hubli, Bombay.

Messrs. Lanchester, Lucas & Lodge, Architects.



Architectural Treatment for the Fashions Fair Exhibition, 1924.
Mr. W. Braxton Sinclair, F.R.I.B.A., Architect.

Royal Academy Exhibition, 1926.



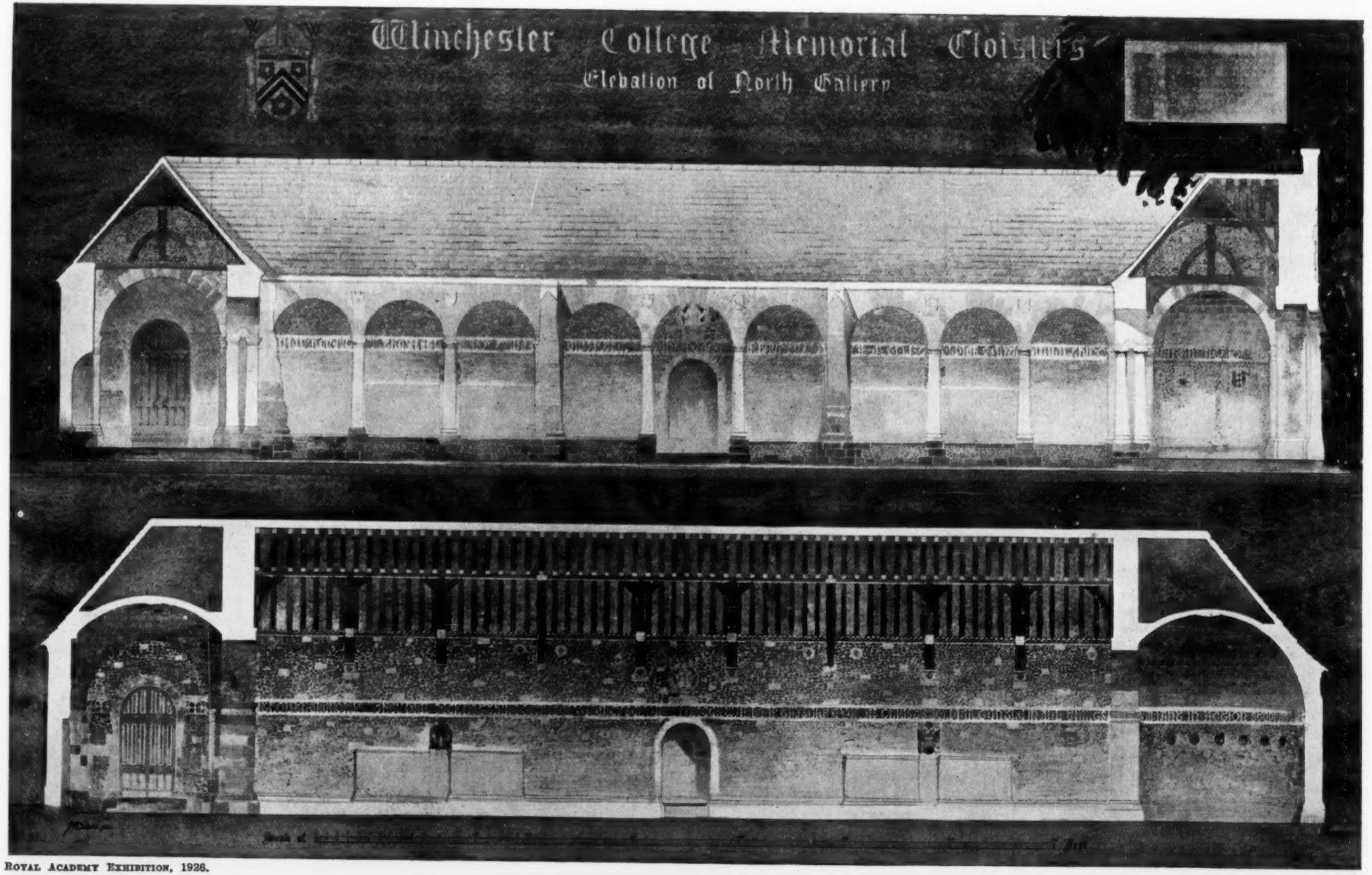
ROYAL ACADEMY EXHIBITION, 1926.

Design by SIR EDWIN L. LUTYENS, R.A

ROYAL ACADEMY EXHIBITION, 1926.

Model of new Head Office for the London Life Association, King William Street, E.C.

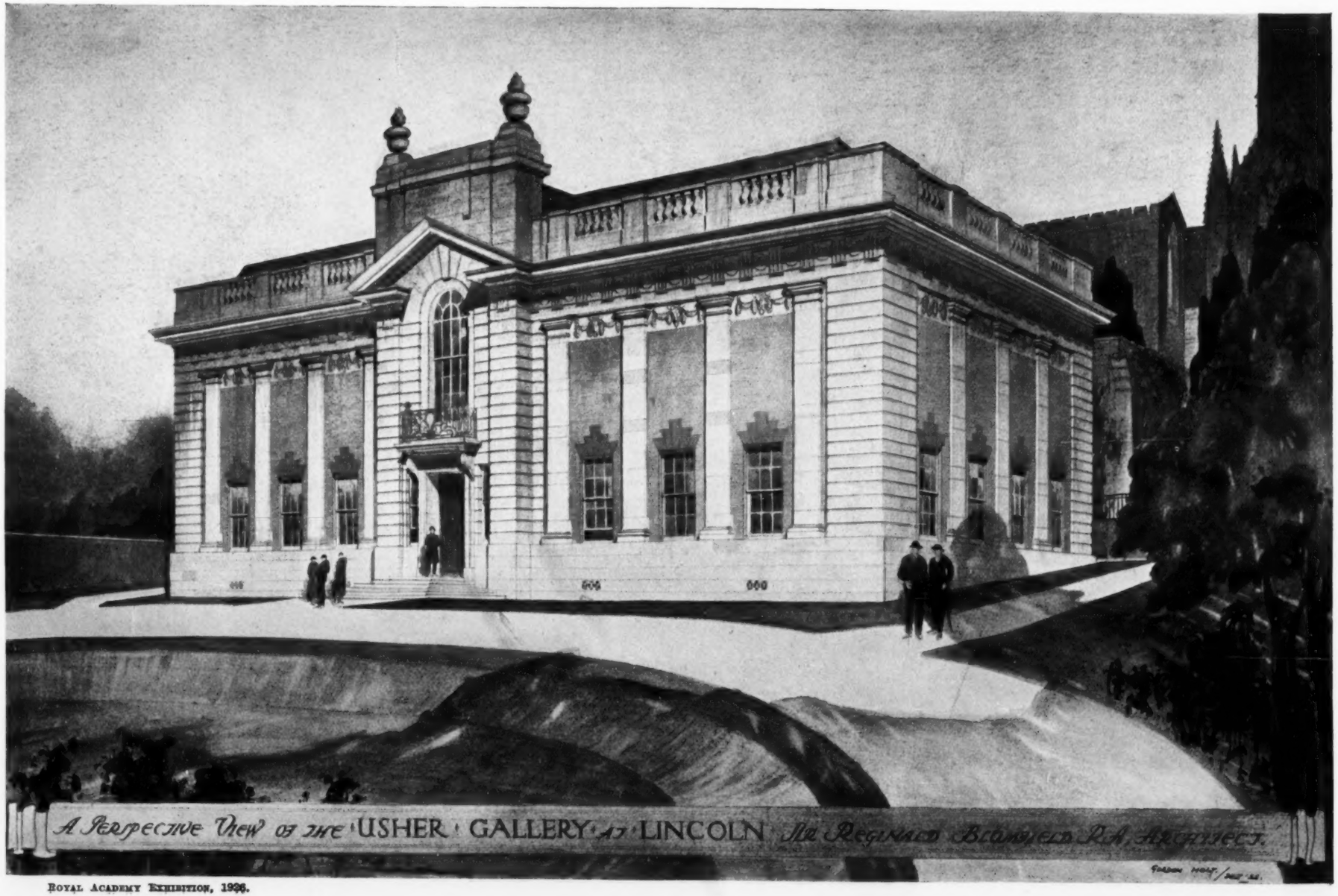
Mr. W. CURTIS GREEN, A.R.A., F.R.I.B.A., Architect.



ROYAL ACADEMY EXHIBITION, 1926.

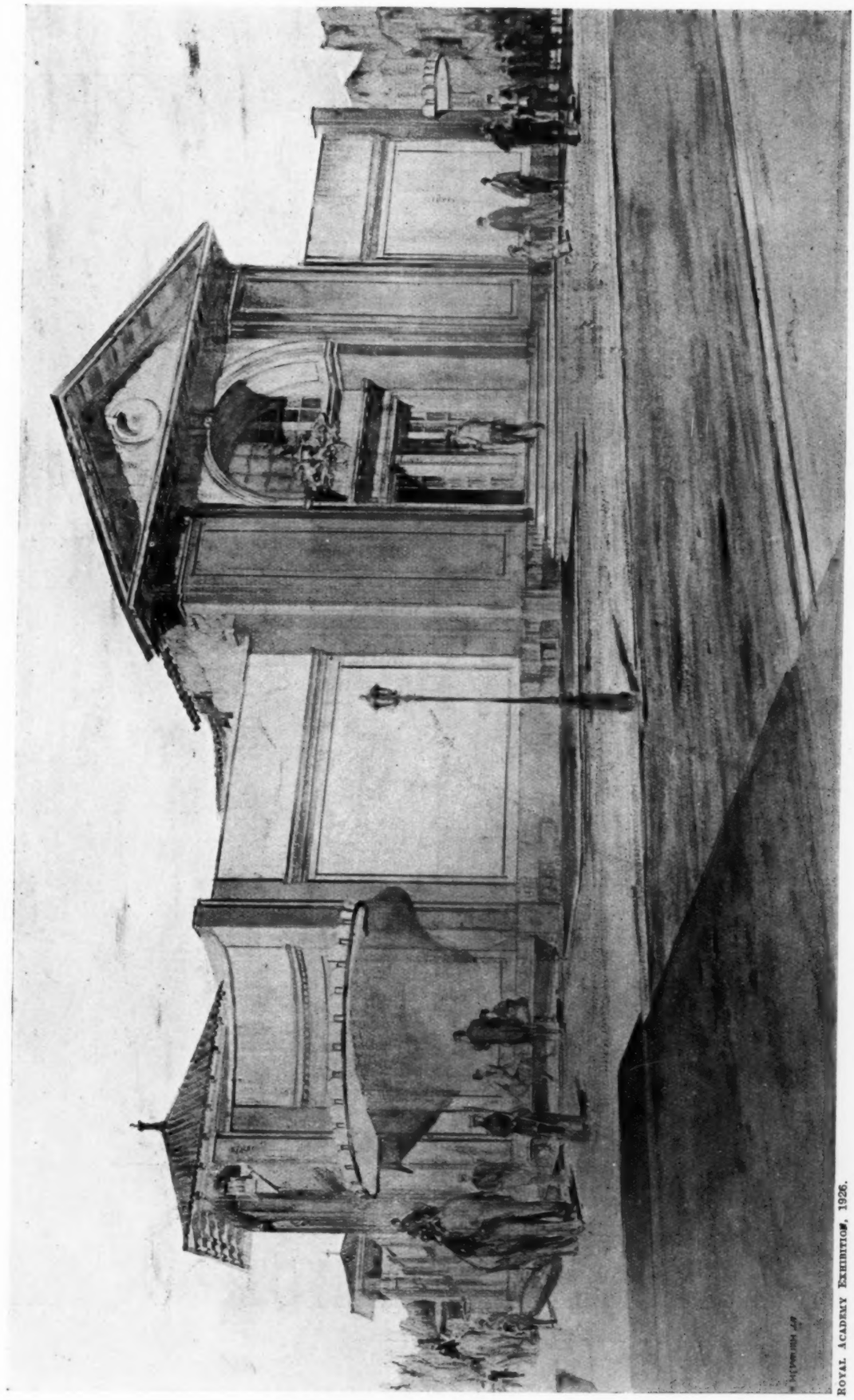
MR. HERBERT BAKER, A.R.A., Architect.

UNIV. OF MICH.



ROYAL ACADEMY EXHIBITION, 1926.

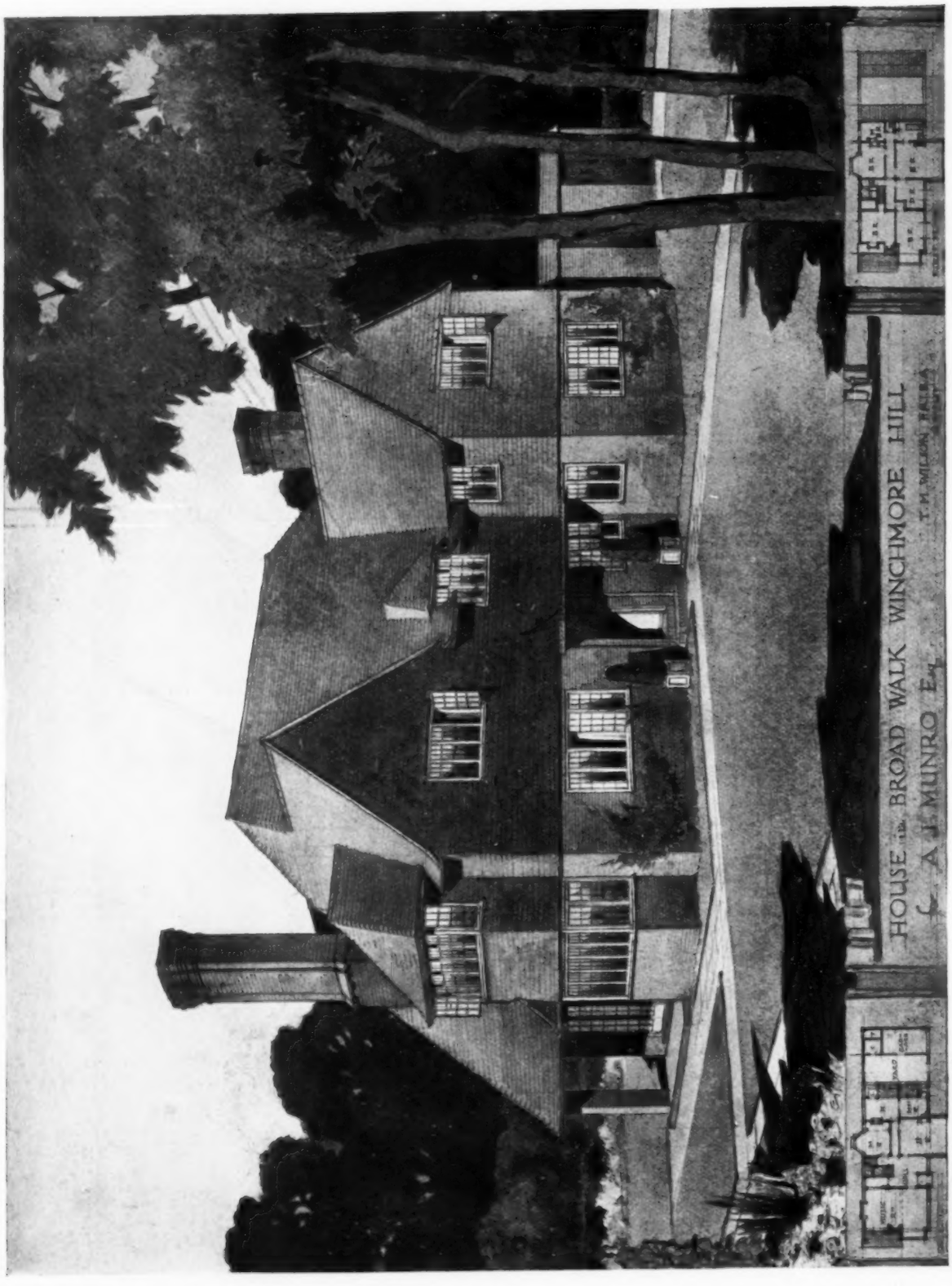
UNIV. OF MICH.



ROYAL ACADEMY EXHIBITION, 1926.

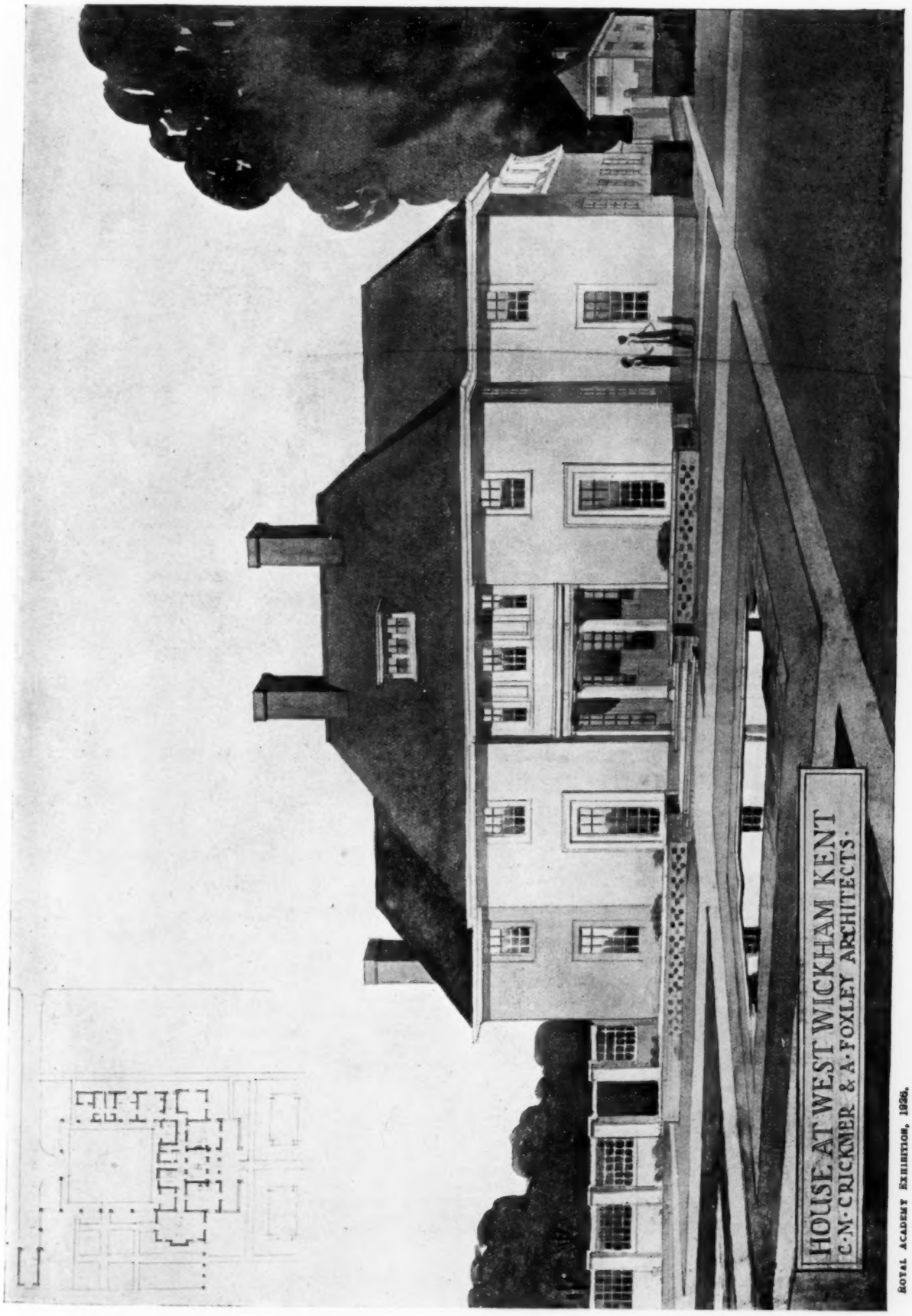
New Reptile House at the Zoological Gardens, London.

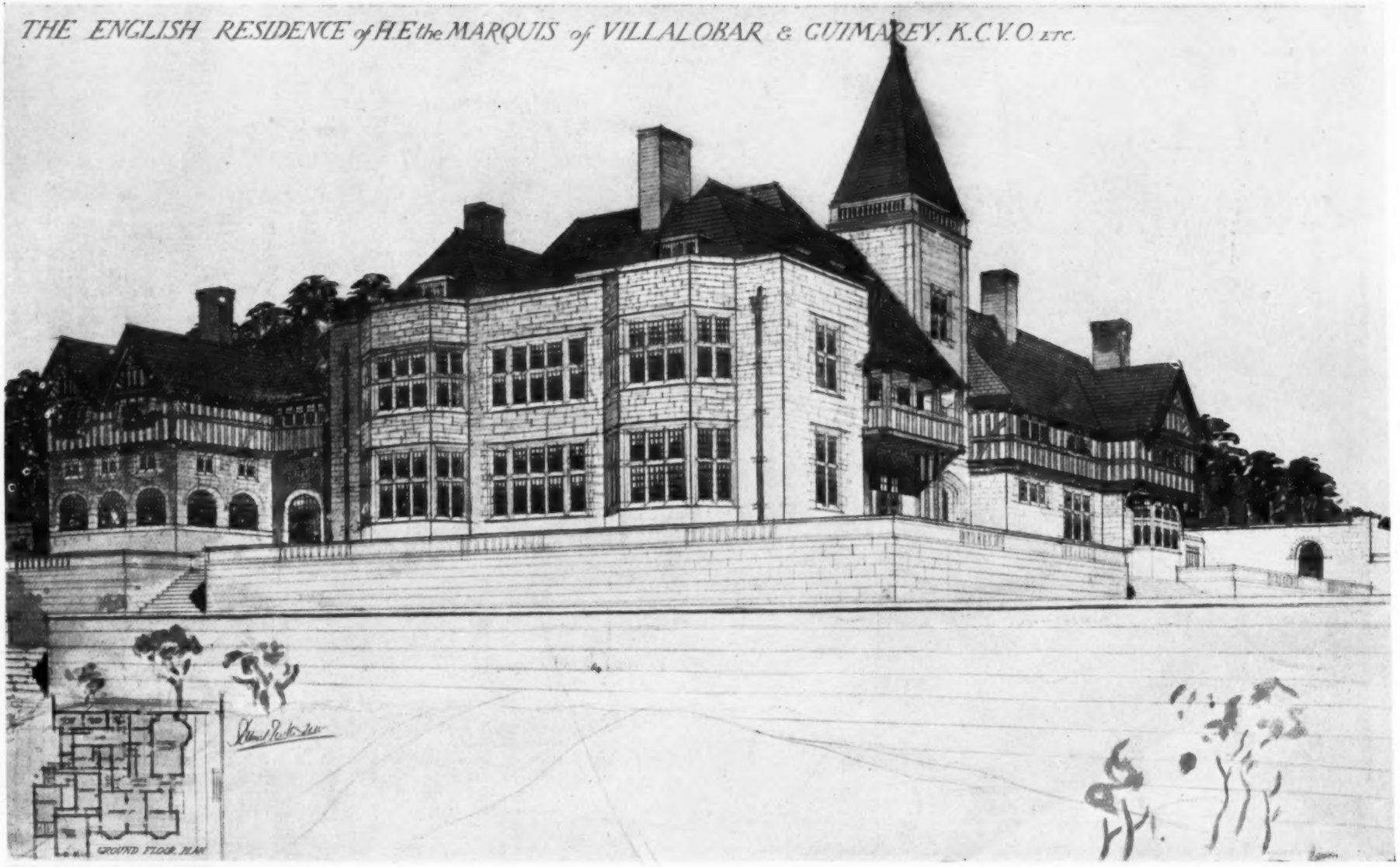
MR. E. GUY DAWBER, P.R.I.B.A., Architect.



House in Broad Walk, Winchmore Hill.

Mr. T. M. Wilson, F.R.I.B.A., Architect.


HOUSE AT WEST WICKHAM KENT
C·N·CRICKMER & A·FOXLEY ARCHITECTS·
ROYAL ACADEMY EXHIBITION, 1926.

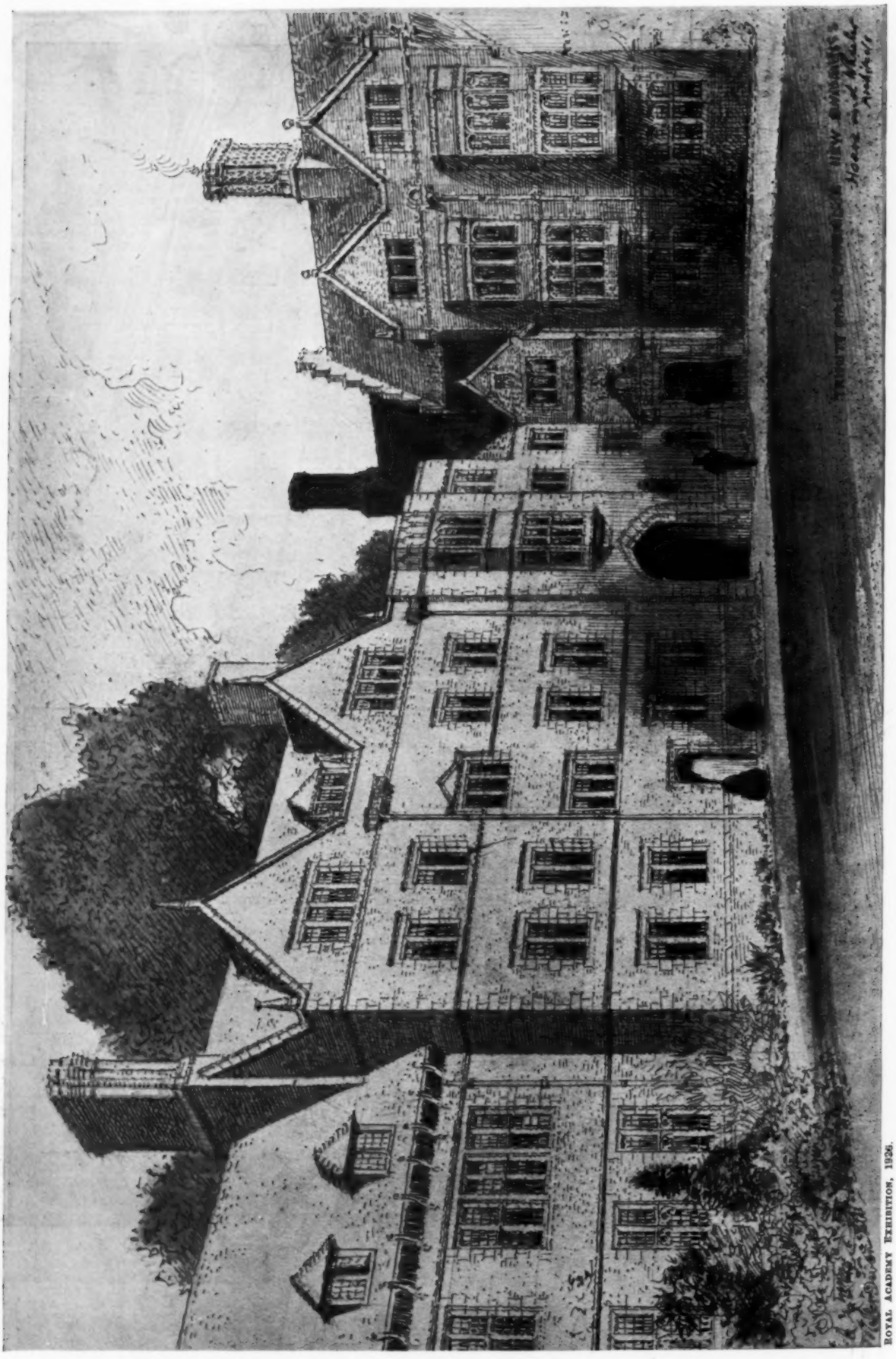


ROYAL ACADEMY EXHIBITION, 1926.

MESSRS. H. R. & B. POULTER, Architects.

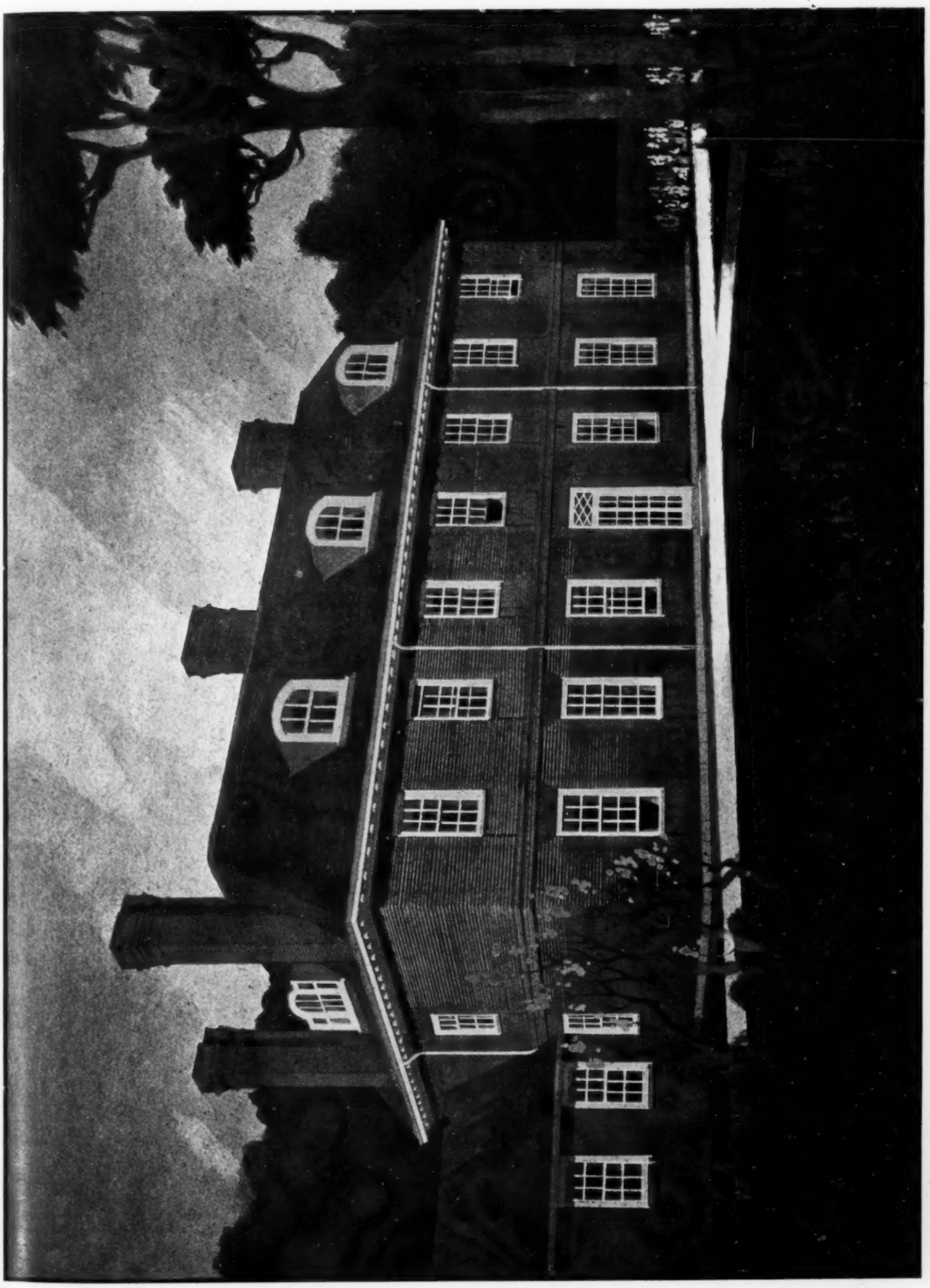
Lloyds Bank, Ashford, Kent.
Mr. Horace Field, F.R.I.B.A., Architect.

Royal Academy Exhibition, 1926.



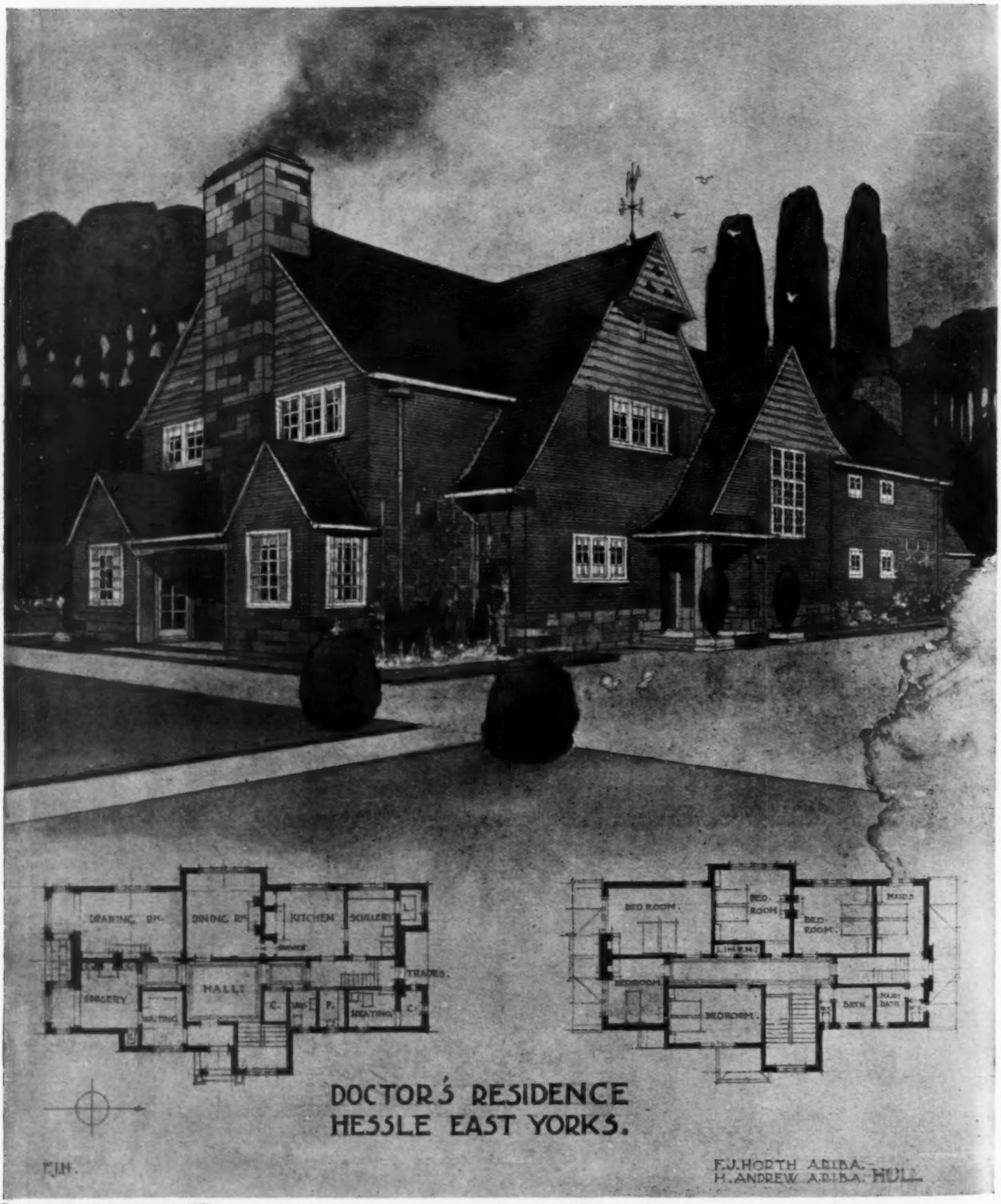
New Buildings, Trinity Hall, Cambridge.
Messrs. Hoare and Wheeler, Architects.

Royal Academy Exhibition, 1926.



Royal Academy Exhibition, 1926.

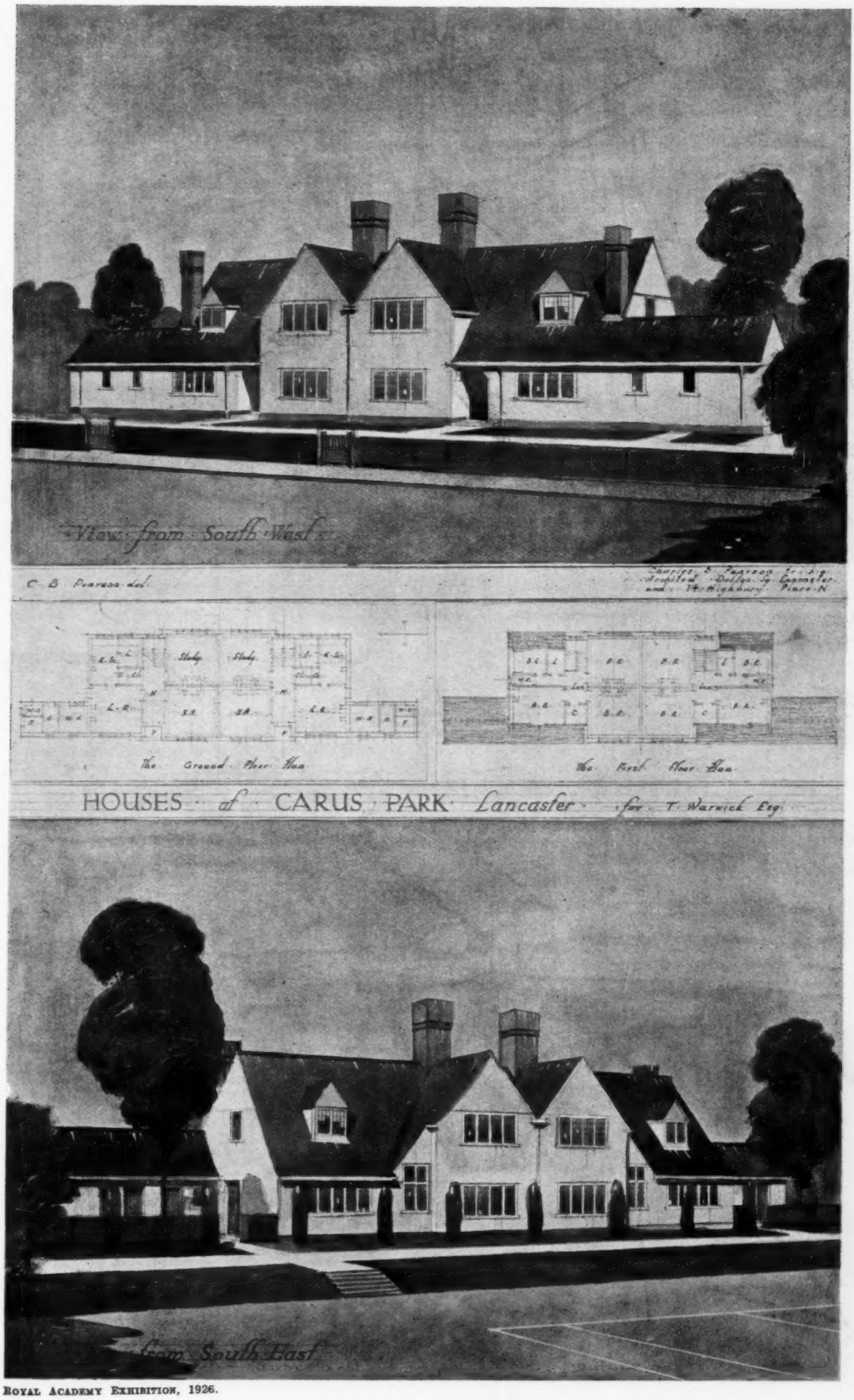
A House at Thames Ditton. Messrs. Nicholas and Dixon-Spain, Architects.



Royal Academy Exhibition, 1926.

Doctor's Residence, Hessle, East Yorks.

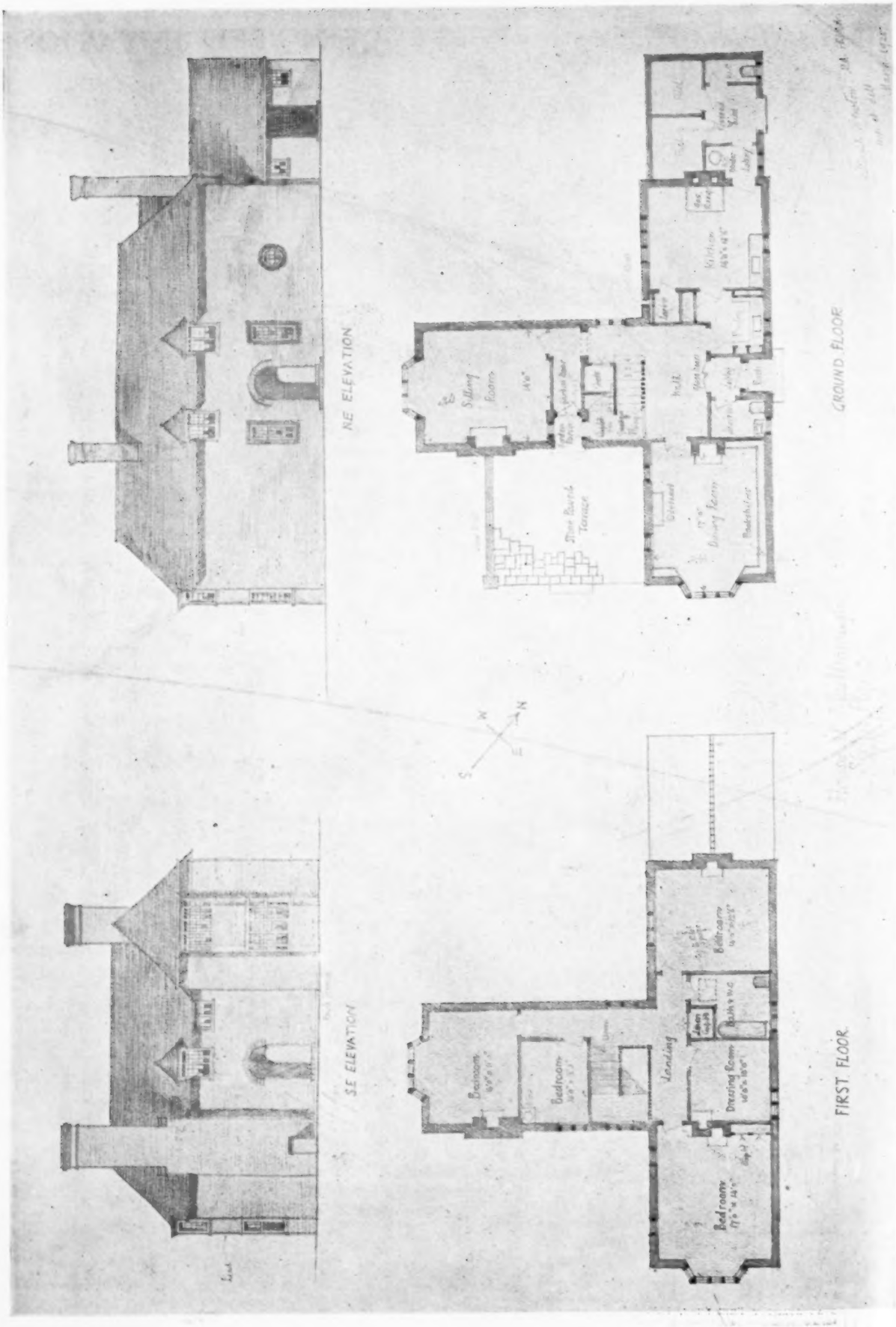
Messrs. F. J. Horth and H. Andrew, AA.R.I.B.A., Architects.



ROYAL ACADEMY EXHIBITION, 1926.

Houses at Carus Park, Lancaster.

MR. CHARLES B. PEARSON, F.R.I.B.A., Architect.



"Cuckoo Pen," Marlborough. Messrs. Ernest Newton, R.A., & Soss, Architects.

Royal Academy Exhibition, 1926.

OLD LONDON TRADE CARDS*

THIS quarto volume is one of the most interesting books recently published on the by-ways of London's varied history. It is the first of its kind; in fact, it is the only work to consider seriously a form of advertisement of various trades and traders of a bygone age. As the author remarks, although generally known as "Trade Cards," and, for the sake of convenience, baldly so described, these commercial announcements are in reality something far beyond what the words connote. In addition to giving the trader's name and address, and the nature of his calling, these finely engraved plates, on hand-made paper, are, more often than not, veritable works of art, to whose fashioning such men as Hogarth, Kirk, Darly, Delegel, Bartolozzi, Bickham, and many other artists and engravers have brought their combined powers of design and production. Apart from their artistic qualities, they possess marked historical, topographical and heraldic interest, for they not only indicate the wares dealt in by the tradesmen of a past day, but frequently portray the actual shops where the goods were procurable, while many of the earlier examples show a reproduction of the trader's sign which hung out before each shop down to the year 1762 (and even later), when the numbering of the houses in London's streets became fairly general.

In the beginning these trade cards were somewhat crude, many being simply letterpress announcements, a mere hand-bill or bill-head, in fact, the object of a small advertisement in the newspapers of the day, in which buyers were exhorted to instruct their servants to bring back a "bill" so that their employers would know they had been to the right shop. Competition grew; the crude bill-head gave way to a somewhat more artistic woodcut, which, in turn, was superseded by the fine copper-plate "cards." Many of these later kind were very large, and were, to say the least, somewhat out of all proportion to their original intention, the engraved portion filling up one side entirely, so that the goods bought had to be written on the back. The signs, and pictorial representations of them, usually had some connection with the trade carried on, but in many instances the sign bore no relation to the business announced.

In the volume under notice, one hundred and one examples of both kinds are reproduced, in facsimile, as separate plates, besides others in the text, and from a study of these it is easy to see how varied the signs were.

Many of these signs and cards are beautifully executed, some with the signs not described or mentioned in the script portion, leaving the reader to understand for himself. One of these cards is that of John Bristow, Fire Engine Maker, of Ratcliff Highway, London, whose sign was evidently the Sun, in what is heraldically known as "in splendour." Others have a sign mentioned but not depicted; of such is that of "Francis Noble's Large Circulating Library, at Otway's Head, in King Street, Covent Garden," which has a fine view by Ravenet of the interior of Noble's extensive premises, an almost exact view, by the way, of the old Sion College Library, but there is no representation of Otway's head, although this might well have been introduced, as in the case of other "Heads."

Space will not allow of further references, but one welcomes the reproduction of some "Cards" connected with the building industry. One of these is that of "Henry Sidgier, Carpenter, Joyner, and Undertaker, at the Carpenter's Arms in Great Shere Lane, near Temple Barr, London." This is adorned with the arms of the Carpenters' Company, a coffin, and a window-sash or frame. The name, business, street and Bar have all gone, the site of Shere-lane being covered by the Law Courts in the Strand.

The illustrations in the volume are almost entirely from the fine collection in the possession of the author, but a few are reproduced from those in the British Museum, the South Kensington Museum (Victoria and Albert), the Guildhall Library, and the private collections of Mr. C. W. F. Goss and Mr. E. E. Newton, many or all of these being formerly in the Hodgkin and Gardner portfolios.

Although it may be said that these ornate trade announcements have had their day, yet it seems quite possible to improve upon some of the business cards and invoice headings at present prevailing. If shop-fronts can and are being so greatly improved in style and appearance, a neat and yet artistic piece of personal printing should surely attract equally well, especially when these announcements are sent to people at a distance, who do not always have an opportunity of "viewing the premises."

BOOK REVIEWS

Sir John Morden and His College. By A. E. MARTIN HARVEY. (London: The Morden Society.)

In this the Morden Society, at the sign of *The New Argosy*, have produced a very attractive little booklet containing a short account of the life of Sir John Morden, 1628–1708, and detailing more particularly the founding of his college for "decayed merchants." This is of especial interest, for he engaged the services of Sir Christopher Wren, who, with the aid of his master mason, Edward Strong, built for him what is stated to be the finest piece of Wren's domestic architecture in existence. The work is prefaced by Colonel Sir T. Vansittart Bowater, Bart., M.P. There is a supplement in the form of a symposium concerning the proposal afoot to bring a new road from Kidbrooke by way of Morden-road on to the Heath, thus destroying the amenities of the district. The whole is embellished with drawings and decorations by E. B. Hoyton and Milner Gray.

The China Architect and Builder's Compendium. Edited by J. T. W. BROOKE, A.R.I.B.A., and R. W. DAVIS. (Shanghai: *North-China Daily News and Herald*, Ltd.) Price 5 dollars.

The necessity for such a work as this, similar in scope to those published in Great Britain and America, has been apparent for many years in China, where information is more scattered and more scanty. The Compendium has thus become the standard reference book for architects, builders and property owners in China. The editors have spared no pains to make the catalogue of building materials as comprehensive and exhaustive as it is humanly possible. This edition includes the new French building rules, articles on quantity surveying, foundations in soft soil, land valuation, &c., a set of conversion tables. There are also illustrations of the new Shanghai Post Office and a new country hospital, with plans of the latter, and two large street plans of Shanghai and Hankow.

How to Own and Equip a House. (London: R. A. Bateman, Ltd., Kingsway House, Kingsway, W.C.2.) Price 2s. 6d.

The sub-title of this little book is "A Complete Guide to Ownership and Equipment," and no one who reads the sixteen chapters into which it is divided is likely to object to the claim. Of the many books which have been written on the subject of the house we doubt whether any contain more useful information, clearly and simply stated, than the volume before us, for though, of course, it has been impossible to write exhaustively on the many matters dealt with in its 350 pages, the information which is given is constantly asked for, and to obtain it a good many books or authorities have usually to be consulted. Not only will those who own a house, but those who desire one, find useful information in these pages, and the mere mention of the following chapters will indicate its scope and suggest its usefulness: How to Find the Money; Choosing the Site; Building a House and Types of New Houses, with Plans and Photographs; Buying a House Already Built; Furnishing the House; Interior Decorations; Lighting, Heating and Cooking; Labour-saving Devices; Indoor Sanitation and Sanitary Fittings; On Making a Garden and Insurance.

Arbitrations. A Text-Book for Arbitrators, Umpires and all connected with Arbitrations, especially Architects, Engineers and Surveyors. By the late PROFESSOR BANISTER FLETCHER, J.P., D.L., F.R.I.B.A., F.K.C. Fourth edition, revised and largely re-written by SIR BANISTER FLETCHER, Architect, F.R.I.B.A., F.S.I., Barrister-at-Law of the Inner Temple, formerly Lecturer at King's College, London, Author of "A History of Architecture on the Comparative Method" (7th edition), Joint Author "The London Building Acts," "Valuations and Compensations," "Light and Air," &c., and MAJOR H. PHILLIPS FLETCHER, D.S.O., F.R.I.B.A., F.S.I., A.M.Inst.C.E., Barrister-at-Law of the Middle Temple, (London: B. T. Batsford.) 10s. 6d. net.

The third edition of this work appeared in 1904, when it was largely re-written, and the author, Sir Banister Fletcher, explains in his preface that though the title page is retained in its original form, he is himself alone responsible for this fourth edition, and our readers will be acquainted with the reason, as his distinguished brother was killed in the war. It is unnecessary for us to say anything of a work which has reached its fourth edition—its record speaks for itself, and the public has expressed its own opinion upon it.

The author states that since the last edition there have been no great changes in the law, but his object has been to include several important decisions and thus to bring the work up to date. If we venture to suggest one or two cases which appear to be omitted, it must not be taken that the author has at all failed in his object, as he may not have considered them relevant to the points he deals with. One such case, however, appears to us directly in point to the subject he treats of on page 22—discovery under the First Schedule, paragraph (*f*) of the Arbitration Act, 1889. The author there says: "It would appear that under this clause an arbitrator has power to order either party to give discovery of his document (*sic*) and make the usual affidavit or list of documents. . . ." This statement is correct, but there is more recent and definite authority for it than that given in the text. In Kursell *v.* Timber Operatives Contractors, Ltd. (1923 2 K.B. 202; *The Builder*, May 25, 1923), it was definitely decided that under the above paragraph on a reference by consent out of Court under the Arbitration Act the arbitrator has power to order either party to make discovery of documents or to answer interrogatories, unless, of course, the submission which is in writing neither modifies the powers given to an arbitrator under that Act nor the terms of submission set out in the Schedule. The only other two cases which we do not find are in *re* King and Duveen (1913, 2 K.B. 32; *The Builder*, March 29, 1918) and Parsons and Others *v.* Brixham Fishing Smack Insurance Society (1918, *Weekly Notes* 70; *The Builder*, March 29, 1918). In the first of the above cases it was decided that if a specific question is submitted to an arbitrator and he answers it, the fact that the answer involves an erroneous decision in point of law does not make the award bad on its face so as to permit it being set aside, whilst the second case distinguished this on the ground that there was no reference to a specific question.

The fact that cases can be discovered which are not cited in a text-book is no reflection on the work of the author, who may have exercised a discretion in omitting them, and those conversant with earlier editions of this well-arranged little handbook will welcome an edition brought up to date after a long lapse of time since the previous edition.

* "*London Tradesmen's Cards of the XVIII Century: An Account of their Origin and Use.*" By Ambrose Heal. (London: B. T. Batsford, Ltd., 94, High Holborn.) Price £2 2s. net.

BRITISH TOMBS, ANCIENT AND MODERN

By W. R. LETHABY.

V.—THE DAYS BEFORE YESTERDAY.

Death of Monuments.—It was with the intention of telling about humbler tombs that I began this little group of papers, but I was led aside by the fascination of the noble Anglian Crosses, and again by the haughty monuments of Elizabethan gentry. The last section grew so long that I had not even space "to draw out any lessons," but I will venture to set down points that occur to me about more costly monuments before passing on to consider the ordinary tombs of modern days.

Larger monumental works usually included figure sculpture of the best kind obtainable.

Such monuments, indeed, were the work of sculptors; on one hand they were the best that might be got, on the other they were wrought according to custom.

We are helpless as individuals without the tide of custom.

When master tomb-makers ceased to exist in their own right and fell back on expecting designs from architects, which might be anxiously translated by hack-work, tombs became tired and died.

Since the Elizabethan age there have been a few respectable works of sculpture wrought for memorials, like some of Flaxman's, but these have failed in essential parts, such as the masonry forms and the lettering. I suppose that only one work of any real importance and power has been done in England for the last three centuries—the Wellington Monument, by Alfred Stevens. This is rather startling, perhaps even frightening. Until we get back mastery of workmanship which includes "design," we cannot have worthy monuments, big or small.

Under our changed conditions I wonder if it would not be possible for sculptors to make some small panels and medallions which might be sold out of stock, as it were. Of bronze, lead, glazed terra-cotta, or hard stone, they might be let in to the ordinary stone of the monument. A thing 6 in. across might add some thought to our dreary routine of funereal manufacture. As it is, we suffer all round in the vicious circle of the housing paradox: Sculptors are perishing from having nothing worthy to do, and all our forms of "architecture" are languishing for the want of them. Might not something be done by co-operation or by some application of the shop principle? Even in exhibitions, it would be possible to experiment with "Medallion for a tomb, price 50s." "Panel for a chimney-piece, 3 guineas."

FIG. 1

Of course, repetition work is meant; I would welcome cast-iron even, if it expressed some human thought.

I mentioned glazed terra-cotta above. Several of the "sculptures" of Elizabethan monuments were, I believe, of painted terra-cotta. According to Speed, the figure of Stow, the historian is of this material. A charming portrait bust of Francis Bacon as a boy, illustrated recently, was also baked clay coloured. In the *Times* for April 15, it appears, in a letter from Dr. Paget Toynbee, that there were three such portraits at Gorhambury: "Painted busts of Lord Keeper Bacon and his wife, and one of Sir Francis Bacon as a child."

Local Traditions.—After the withering-up of the greater traditions of monument-making in the early years of the seventeenth century, customary ways of doing necessary work still persisted for more modest tombs in our country towns, and the happy results may yet be seen in thousands of our old churchyards. Each district, moreover, had its own distinct character, depending on the use of local materials and what may be thought of as dialects of workmanship. In Yorkshire one finds stones, rough, thick and stumpy, each with a few lines of big lettering in native speech—all human, true, natural. (Fig. 1.) In Cornwall are scores of rudely-shaped crosses, so easily obtained from the original blocks that they again look like natural products as, indeed, they are, products of natural ways of workmanship. On the north coast of the same county, in the slate district, are found smooth slabs ornamented and lettered with a delicacy which emulates metal plate engraving. Again, in Wiltshire and Hampshire, we find fair white headstones largely, I suppose, from the Chilmark quarries. These are shaped into slightly varying forms with delightful ease of handling. They are all different from one another, each growing, as it were, out of its own quarry slab, but they are all alike in sympathetic harmony—that look of being at rest at home. It is these and such as these that formed the necessary background to the "Elegy in a Country Churchyard."

Such things as these, by fully competent master craftsmen, are works of art, culture, civilisation. The men who wrought them may not have read much, they may not in some cases have been even able to write, but they held a secret which we have lost. Here may I put in a plea for the preservation of these tombs. In going about I am at times shocked to notice that the beauty of these evidences of our former ways of life and death are not recognised. In many places these written stones of record are themselves crumbling into dust. They are thought of as funny old things that somehow got there before the arrival of the correct sham Gothic style. A rector told me, "No; I don't care for that sort of thing."

These stone headstones began small and thick and got bigger and thinner. Those done in the eighteenth century are frequently elaborately decorated with ornamental (some semi-naturalistic) foliage in very low relief; hardly more than engraving on the smoothly rubbed face.

FIG. 2.

Fig. 2 is a small photograph in a Wiltshire churchyard with some of the earlier headstones in the background and a larger one of the eighteenth century in front. One that appears close to this last on the right had the face blackened and the lettering cut through this showing white. These headstones give examples of the common type of shaping, which is varied in endless variety. Again, the carving is in the very lowest possible relief.

Fig. 3 is a border and a lily from a Wiltshire headstone, probably not more than an eighth of an inch in relief, the background being regularly tooled to bring out the relief.

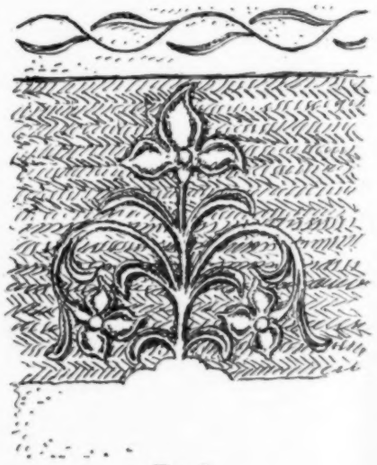


FIG. 3.

Fig. 4 is a rough suggestion of the way in which three Cornish crosses are wrought. They are very rough, but they are most scientific in the application of labour to obtain the desired forms with the least chipping away of the material. Not only is the main form got out of

the block in this way, but the details are added with very slight irregular lowering of the ground in spaces and lines, which in some cases are only wide incisings or channels. "We cannot do our modern work like this." I know, worse luck, but we must do it on this principle. That is, we

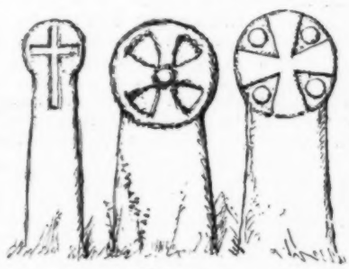


Fig. 4.

must not "design" crosses in the air, but they should be seen as cut out of blocks or slabs of stone by masterly workmanship. These Cornish crosses are, of course, earlier than the time with which I am now dealing, but I bring them forward as examples of the way in which materials were handled in all times of craft competence.

London Churchyards.—It was in London, I suppose, that the habit first became general of employing white marble for quite ordinary outdoor works; yet for a long time pleasant ways of masoning, shaping and lettering survived. The material was imported, but the skill of workmanship and power of thought were supplied at home. While this has been in my mind I have been surprised and touched to find how great a number of pleasant London tombs still exist in dark little City courts, and wider suburban churchyards as St. Giles-in-the-Fields, Paddington, Brompton, and Fulham. In more distant suburbs, such as Willesden and East Ham, the country village churchyard character still lasts on. In the former—if you will believe it—are still two or three of those pleasant old wooden bed-end kind of tombs, one of the most perfect of all types (Fig. 5).

Fig. 5.

East Ham churchyard is crowded by big box tombs, tottering, bulging and broken in terrible desolation; it looked to my eye as if the Last Judgment had been in the night.

If there is any organisation, beyond the body of marble importers, which represents the tomb trade in London, I would suggest to them that they should get a modest illustrated account prepared on tomb traditions in the London district before, say, 1800 as a starting-point. The whole country should be surveyed in the same way, district by district. There must be dozens of books on showy tomb grandeurs for nowhere in particular. What is wanted are suggestions of simple pleasant things in certain stones for a given neighbourhood which might be adapted and varied and improved by a little master in the next town. Last year, in going through an old county town, I saw a name over a monument maker's shop which I had found on many nice tablets and things in villages round about, made in a period of a century or so. I ventured to go in, and after explaining that I was not *immediately* interested, had an informing chat with the proprietor. "Yes; we are an old business. My father's father . . . But things are changed, and I find that I am becoming little more than an agent for the marble firms. I'm going to get out of it shortly. . . . No; there is no one who will carry on the old name."

THE THAMES BRIDGES

Sir Henry Maybury, in his recent report on the bridge problem of London, deals separately with the Tower, London, Southwark, Blackfriars, Waterloo, Westminster, Lambeth, and Vauxhall bridges and with the need of further bridges. Turning to the proposed St. Paul's Bridge, he says:—

There has been considerable controversy about the wisdom or otherwise of the intentions of the City Corporation to proceed with the construction of the bridge known as St. Paul's, those opposing the scheme contending that such a bridge, with its approaches, must tend to attract additional traffic into the City and thus accentuate the congestion and delays which are now all too pronounced. I do not share this opinion. Very soon additional traffic facilities must be provided to relieve London Bridge, and as Southwark Bridge is of little moment, I see the greatest possible traffic value in encouraging the City Corporation to keep alive the St. Paul's Bridge scheme, and proceed with it at the earliest possible moment. The position selected is in a direct north and south line, accommodating traffic which will approach from the Great North-road via the Angel, Islington, Aldersgate-street, and Cheapside to the south side, through an enlarged Great Guildford-street to connect with Southwark Bridge-road and Marsha'sea-road. I see no insurmountable difficulty in making provision for the better handling of traffic in Cheapside and at the point where the proposed new approach road crosses Cannon-street. If a circus were constructed, then there need be no interruption at all to the free flow of traffic. It is common ground that from Cannon-street the bridge approach road is to be carried on a viaduct over Queen Victoria-street, so that considerable relief may be expected in consequence of this form of construction.

If the St. Paul's Bridge question may be fairly described as a controversial one, Sir Henry says that the Charing Cross Bridge question is a thousand times more so. He dismisses as not within the realm of practical politics proposals to remove the Charing Cross railway station, constructing a new railway bridge, and superimposing a capacious road bridge. The technical officers of the railway company are satisfied that the bridge is not likely to cause anxiety for twelve or fifteen years. He looks upon the provision of additional cross-river bridge facilities in this neighbourhood as urgent. Waterloo Bridge (he continues), if reconstructed and enlarged, would of course afford additional traffic facilities, but I am of opinion that far greater relief would be provided if a bridge could be erected on the down-stream side of the present railway bridge, in probably the only position now available. I have given much consideration to this matter, and have prepared numerous sketch plans showing how the scheme, if undertaken, would work out. There are river navigation difficulties to be anticipated by the erection of such a bridge. Of necessity it must be reasonably close to the present railway structure, and therefore it is incumbent to reduce the amount of obstruction in the shape of piers to the very minimum. Accordingly I have set out to cross the river at this place with a three-span structure. Such large spans of necessity limit the type of construction considerably, and if the scheme matures it may eventually be decided to erect a steel bridge. The details, however, need not arise at this stage. Suffice it to say that it is engineeringly possible to construct such a bridge of ample width and strength.

I would propose, on the northern side, to commence the bridge approach near the Nurse Cavell statue, rising to cross the Strand by an over-bridge, and carry the structure at about the same level as Waterloo Bridge over the river, connecting in turn with the existing Waterloo Bridge-road. Such a bridge in such a position would, of necessity, cost a considerable sum of money, and would involve the demolition of buildings, and thus the payment of substantial compensations. I am, however, of opinion that the whole scheme could be carried through in its entirety for about £5,000,000.

Dealing with Waterloo Bridge and with the proposals of the London County Council for its demolition and reconstruction, and assuming the Charing Cross Bridge scheme to be favourably entertained, Sir Henry Maybury says:—There are several factors which it is well to consider. If Charing Cross Bridge be built, it would afford substantial and necessary relief to Westminster Bridge, and would, in my view, reduce the volume of traffic passing over Waterloo Bridge. It is important, if it can be done, to diminish the amount of traffic passing over Waterloo Bridge because of the congestion which this traffic occasions at the Wellington-street—Strand crossing. Again, it is in contemplation to remove Covent Garden Market. Should this scheme materialise, then a very large volume of traffic which now uses Waterloo Bridge daily would be entirely deflected, and it is not at all impossible that, with the removal of the market, a new traffic route could be provided connecting Charing Cross-road with Aldwych, via Maiden-lane, thus duplicating the road accommodation through the Strand. With a bridge erected over the Strand in connection with the approach to the new Charing Cross Bridge, there would cease to be any intersecting traffic at this point. There is little doubt that Charing Cross Bridge would be extensively used, with, in all probability, a diminution in the user of Waterloo, and at the same time giving much-needed relief to Westminster.

Mediæval English Social Life.

A series of books on social life of an original type is announced for immediate publication by Messrs. B. T. Batsford, Ltd. It is entitled "Life and Work of the People of England from the Conquest to 1800," and is the work of two teachers, Miss Dorothy Hartley and Miss Margaret M. Elliot. The aim is to present a pictorial and textual record from contemporary manuscripts, drawings and prints, and each volume of the six is devoted to a century. Each contains 49 plates, comprising about 150 pictures of agriculture, city life, industries, sports, the church, education, medicine, welfare, &c., and there is a general introduction on the characteristics of each period, notes on points of detail, contemporary maps and music, and a chart. The two volumes now ready deal with the fifteenth and sixteenth centuries.

Passing of Newton Hall.

In the reconstruction of the Royal Scottish Corporation building in Crane-court, Fleet-street, Newton Hall will be entirely demolished The Hall stands on the site of the Wren building occupied by the Royal Society from 1710 to 1782, when it was bought by the Scottish charity. It was destroyed by fire in 1877, and the records of the Scottish community in London were lost. Newton Hall, which is now to be given over to the housebreaker, was built soon afterwards, but for many years it has been found too small for the needs of the Royal Scottish Corporation. Accordingly a new hall and a suite of offices will be incorporated in the rebuilding scheme, and these will constitute the headquarters of the London Scottish societies. The rebuilding scheme will cost about £24,000, and the work will take nine months.

APPROXIMATE ESTIMATING*—III

Appendix I

illustrates a page of a method evolved on these lines. It is not suggested that it is perfect or not capable of improvement, but for buildings of a simple character of various usual types it proves very effective.

It gives:—

1. A list of leading dimensions.
2. Shows exactly what items these leading dimensions serve.
3. Then enumerates under further headings all the other items which it is necessary to include and consider in arriving at the approximate estimate.

By these means it ensures that nothing shall escape consideration. Skilled estimators and quantity surveyors will have no difficulty in pricing the measured items to cover the labours etc., which, under this system, are included in the cost, or in placing a lump sum figure upon such items as, difficulty of access, etc.

Anyone less skilled in pricing and tempted by the simplicity of the measurement to try this system can utilise, as Mr. Barns has for the sake of his examples, the *Builder* prices as a guide. Having priced out their estimate on these lines, however, they should seek expert advice before staking their reputation upon the result, so as to be certain that all adjustments necessary to the particular case have been dealt with, which I have enumerated when dealing with unit prices. I consider this the best form for rapid approximate estimating of new buildings, for buildings of a simple nature, where the skill exists to utilise it.

Analysis of Bill of Quantities.

When records are to form the basis of approximate estimates, as I have endeavoured to point out, these records must give facilities:—

1. To ascertain exactly what is included in the total cost.
2. To compare and adjust for varying characteristics.
3. To adjust for shape.
4. To adjust unit prices for varying districts, special difficulties, etc.

Such a record, in addition, must not rely upon an elaborate number of documents, nor involve an undue amount of time or skill in its preparation. *If it does it will not be used.* The only record that will meet all these requirements is, in my opinion, a tabulated analysis of the bill of quantities.

In instituting systems for recording work the skill lies in arriving at the best form of tabulation, and this can only be gauged by the analysis of a mass of data of all sorts not available to the individual.

For my own work I have adopted the form a page of which is illustrated in Appendix II. The main idea has been from an analysis of various jobs to arrive at a form which gives *headings* covering all the work likely to be acquired in buildings of normal character of their respective types. The only data necessary to this form is the bill of quantities and the cubic contents—taken in a uniform manner—which should be embodied in the bill.

Column 1 gives the reference number of the job, district, etc.

Col. 2 gives the number of stories and special factors.

Col. 3 gives the basis or lowest tender and final cost.

Col. 4 gives remarks in reference to difference between tender and final cost.

Col. 5 starts the analysis of the bill of quantities with a column for remarks bearing on the analysis, as the example shows.

Col. 6 gives item numbers in relation to column 7.

Col. 7. This is the column of primary importance in the analysis. It gives the main headings of the analysis in various types.

(1) In block capitals: Trade headings. (underlined).

(2) Block capitals: Items likely to occur in any job of normal character of its type.

(3) Sloping capitals: Special items which are likely to vary in each job.

The record form contains these main headings only. The example given shows, in ordinary type how these headings are supplemented to show the details of the particular job recorded.

Col. 8 gives the total cost of each detailed item arrived at from the bill of quantities.

Col. 9 gives the quantity of materials, where necessary.

Col. 10 gives the average price per unit, including incidental labours, a very important matter when using approximate methods.

Col. 11 gives unit prices inserted from the bill of quantities.

Following this table of analysis, columns are provided giving the price per foot cube and price per foot super together with a table showing the proportional value of trades in percentage.

From this analysis there are two ways of arriving at an approximate cost for new buildings. The first method is to utilise the approximate methods, price per foot cube or super given in the record, keeping an eye on the analysis; to ensure that nothing is overlooked; to compare the characteristics in a general sort of way; to test a few of the main unit items and to ensure that the question of shape does not escape notice.

Where records are to be utilised by those not skilled in measurement I think the above method must suffice. The alternative method is to eliminate the approximate methods of the foot cube, etc., except as a very rough guide and, with the drawings given, to build up the new approximate estimate directly from the analysis which the record provides. Using a form similar to the record form it is then simply a matter of going through the analysis item by item and arriving at the revised lump sum. It will certainly be necessary to measure roughly the approximate quantities of the brickwork, the floor area and the roof areas and other items *which as a result of these measurements and experience it deemed advisable to adjust.*

In this connection the table of proportional values is useful for it shows at once, for a building of similar type, the trades which dominate the cost and prevents the estimator from wasting time on small adjustments which can have but little influence on the total cost.

To take a few examples: Two jobs might be very similar but one might have a basement and the other might not or might only have a small cellar. In the example given the analysis shows that the building had a basement which involved 1,825 yards cube of body digging at 10s. 4d. per yard. The fact of this body digging would immediately presuppose vertical damp proof course and item No. 18 is immediately referred to. Automatic adjustment of these items would follow.

Passing on to the brickwork the number of rods in the record is noted and calculations for the new approximate estimate made. The price given in the record, including incidental labours, may appear adequate. The new superficial area of brickwork multiplied by this price will then give the cost of brickwork for the approximate estimate. The same method is adopted with floors and roof.

Referring to the roofs, the timber construction is reduced to prices per yard super of roof coverings. In the case of water supply the fittings are described, and the next column an average price per fitting is given for water supply, wastes, etc. An assessment of the new work can easily be made from this.

In connection with electric light, the number of points will be stated; the number of special points, such as for shop lighting, etc., being kept separate. This is the only way to arrive at an approximate figure, but it must be done carefully, for the runs of the mains, etc., make a considerable difference to the cost.

Heating is calculated per radiator; also a rough approximation for the same reason. A full explanation of the analysis cannot be entered upon here and is much better left until further investigation has proved its value and defects.

At the end of your analysis you have adjusted your lump sums and immediately get a total for the new work. Now records of work executed can be prepared on this form by a junior of three years in a quantity surveyor's office for bills up to 100 pages in about ten hours with a minimum of supervision.

As I have endeavoured to emphasise throughout, approximate estimating is responsible work. Upon the figures of an approximate estimate a decision will be taken to have contract drawings and quantities prepared and detailed estimates obtained. If when tenders come in the approximate estimate is considerably exceeded the whole scheme may be abandoned; contractors will have wasted their time, and the fees of the architect and quantity surveyor may be questioned, involving an admission that they were wrong, or a mass of explanation in attempts to justify the figure on the grounds that these rough methods are common practice.

If, on the other hand, approximate estimating is based upon condensed methods of recording accurate estimates, evidence exists of sound method and the exercise of care, and when errors do occur it will be impossible to cast reflections on the skill or conduct of the estimator.

The system I suggest here will probably be criticised as over-elaborate. *But it is only by trying out systems or forms in relation to a mass of data of all sorts that the simplest form can be devised.* Think of the wealth of information which runs to waste in the offices of architects, quantity surveyors and contractors for lack of a clearing house, where the best form would evolve from investigation, and invaluable tabulated data be forthcoming on this subject, to the whole industry. And where should this clearing house be? By whom should the data be collated? I have suggested on a previous occasion that such institutions as the Northern Polytechnic should be utilised for this purpose, at any rate, as an experiment; and it was previous work executed by this institution in connection with the analysis of *The Builder* Housing Competition in 1923 which brought this idea to my mind. A labourer is worthy of his hire, and I think that the tabulation of these records should be paid for. In the medical profession there is an institution known as the Clinical Research, to which doctors may belong for a small annual fee, and to whom they send various specimens that they require analysed. A similar arrangement might be made, and the second lowest bill of quantities might automatically be forwarded sealed to the architect and passed on to your body to be tabulated by yourselves, and the results published periodically to subscribers.

On the other hand, the work might increase so as to interfere with your curriculum, and then your purpose would have been served in advancing knowledge of these methods to a further stage. It might then be handed over to a small department under the Building Research Board, which would prove self-supporting. I believe the institution of a scheme on these lines would itself prove of immense value to the industry, and, in addition, would assist to promote a robust spirit of research and constructive effort without which no industry to-day can prosper.

The Principal, proposing a vote of thanks to Mr. Davson, which was carried unanimously, said that the Northern Polytechnic would gladly undertake investigation on the lines suggested, and within the limits of time which could be given to the work without interference with the curriculum, as he believed it would be instructive to the pupils and that the result would be valuable to the industry.

[Owing to restriction of space, it is impossible to give the appendices in full, but the paper with full appendices is being reprinted in pamphlet form and will shortly be obtainable at the offices of *The Builder*.]

*Lecture delivered to Students of the Northern Polytechnic by Mr. Alan W. Davson, F.S.I.

APPENDIX I.

SYSTEM OF MEASUREMENT (By Horizontal and Vertical Squares)

For Approximate Estimating for New Buildings of a Simple Character of their Respective Types.

LEADING DIMENSIONS.

A. Cubic Contents of Excavation for Basement Excavation.
B. Area of Floors of Similar Construction.
C. Perimeter of External Walls at Ground Floor Level.
D. "Feet Run" of Internal Walls at Various Levels.
E. Height from Top of Concrete to Ground Floor Level.
F. Height of Stories (Floor to Floor).
G. Additional Height from Top Ceiling to Under Side of Eaves.
H. Additional Height from Top Ceiling to Top of Parapet.
I. Number of Stories.
J. Length at Base of Gables.
K. Height from Underside of Eaves to Top of Gable.
L. Length of Eaves (parallel to ridge) in Pitched Roofs.
M. Length on Slope from Eaves to Ridge.
N. Width × Height (between brickwork) of Windows.
O. Width × Height (between brickwork) of Doors.

CLASS SERVED BY LEADING DIMENSIONS.

I. HORIZONTAL SURFACES (i.e., Floors, &c.) Per Foot Super.
Dimension "B" serves :—

1. Ground Floors, including—
   (*a*) Floor covering.
   (*b*) Floor construction (Concrete, Hardcore)
   or,
   Alternatively, or in Addition (Wood joists) (reduce).
   (Add plates and sleeper walls.)
2. Upper Floors and Flats, including—
   (*a*) Floor or Flat covering.
   (*b*) Floor construction (Wood joists).
   Add plates, &c.
   Alternatively, Concrete, Reinforced Concrete.
   (*c*) Ceilings (Plaster, Distemper, or Paint.)

II. VERTICAL SURFACES (Walls, &c.) Per Foot Super.
Dimensions "C" × ("E" + "F") also add "G" and "H" and ½ ("J" × "K") as necessary, serves :—

1. External Walls, including—
   (*a*) Walling (bricks or stone).
   (*b*) Facings (including all normal projections).
   (*c*) Plastering.
   (*d*) General wall finishings.

Dimensions "D" × "F" (add "E" as necessary) serve :—

Internal Walls and Partitions, including—
   (*a*) Walling (bricks, slabs, &c.).
   (*b*) Plastering (both sides).
   (*c*) General wall finishings (both sides).
Alternatively,
   Timber construction.
   Lath, plaster, float and set (both sides).
   General wall finishings (both sides).

III. SLOPING SURFACES (Pitched roofs, &c.), Per Foot Super.
Dimensions "L" × "M" serve :—

Pitched Roofs, including—
   (*a*) Roof covering.
   (*b*) Battens.
   (*c*) Felt.
   (*d*) Boarding.
   (*e*) Rafters (reduced).
   Add Plates, purlins, &c., as necessary.

SUBSIDIARY USES OF LEADING DIMENSIONS.

Dimension "C" serves :—

Trenches, foundations, &c., including—
   (*a*) Excavation.
   (*b*) Concrete.
   (*c*) Planking and Strutting (one side measured).
   (*d*) Damp proof course.
   (*e*) Additional brickwork in footings.
   (*f*) Abnormal projections to facings.
   &c., &c., &c.

APPENDIX II.

RECORD FORM BASED UPON ANALYSIS OF BILL OF QUANTITIES.

Column 1.	Column 2.
Reference No. and District.	Number of Stories and Special Factors.
B.S. 29 London	Factory, London, E.C.—Basement, ground floor and four stories, party wall one side. Site open and easy of access from roads each side; good storage space.

Column 3.		Column 4.
Basis or Lowest Tender.	Final Cost (where available).	Remarks.
Lowest Tender, £11,611 ..	£11,347	——

ANALYSIS OF BILL OF QUANTITIES.

Column 5.
Remarks .. .. .. At the end of the Summary the Contractor made a lump sum deduction of 10 per cent.

Col. 6	Column 7.	Column 8.	Column 9.	Column 10	Col
Item No.	Description.	Cost of Item.	Quantities of Materials.	Average Price per Unit, including Incidental Labours.	Unit Price.
		£ s. d.		£ s. d.	£ s. d.
1	PRELIMINARIES, hoarding and footway £110, taking up pavings £85, and general items ..	345 0 0	—	—	—
2	*SPOT ITEMS, sundry* ..	28 0 0	—	—	—
	EXCAVATOR and CONCRETOR :				
3	*BASEMENT DIGGING. Remove rubbish heaps average 3 ft. 6 in. above pavement level, carted away,* £309 11*s. Digging not exceeding 9 ft. below pavement level, carted away, and planking and strutting and ram,* £635 15*s.* 3*d*...	945 6 3	yds. cube 1,825	10 3	10 3
4	SURFACE EXCAVATION Included in Basement digging	—	—	—	—
5	TRENCH EXCAVATION, commencing 9 ft. below pavement level and not exceeding average 3 ft. 6 in. deep, and small part R.F. and ram, and remainder cart away, and planking and strutting (No charge)	72 19 6	yds. cube 139	10 6	10 6
6	HARD CORE, 6 in. thick..	23 2 9	197 yds. sup.	2 4	2 3
7	CONCRETE IN TRENCHES and PIER HOLES	191 16 0	yds. cube 105	1 16 7	1 15 0 and 2 0 0
8	BEDS, 6 in. thick.. ..	69 1 0	yds. sup. 195	7 1	7*s.* & 7*s.* 6*d*
9	SUSPENDED FLOORS, 6 in. coke breeze concrete filled in between R.S.J.'s measured separately ..	30 12 0	yds. sup. 51	12 0	12 0
10	SUNDRY ITEMS, hearths, and 9 in. × 9 in., 18 in. × 9 in. Concrete lintols ..	18 14 0	—	—	—
	BRICKLAYER :				
11	SOLID WALLS, foundations in stocks, superstructure in Fletton; both in cement.. ..	1,747 4 0	Rods. 58	30 2 6	Average £29 rod
12	HOLLOW WALLS ..	—	—	—	—
13	SUNDRY LABOURS : Bedding frames, cuttings, holes, toothing and bonding, &c.	281 14 0	—	16⅔ on brickwork	
14	CONCRETE PARTITIONS 2 in. and 3 in. Muriblоc	51 19 2	yds. sup. 125	8 4	6 6 & 7 6
15	*FACINGS* (External): *40 per cent. Flettons, 35 per cent. Stocks, 25 per cent. hand pressed red, 10 per cent. Majolica and white glazed**	451 17 9	ft. sup. 7,946	1 2	3½ 8½ 1 0 5 0 3 6
	FAIR INTERNAL FACE	78 15 0	yds. sup. 1,050	1 6	1 6

*Note.—Percentage is given in reference to total superficial area of facings.

&c., &c., &c.

Table Showing Price per Foot Cube, Price per Foot Superficial, Price per Foot Superficial of Surfaces, and Proportional Values of Trades in Percentages.

Price Per Foot Cube.			Price Per Foot Super of Floor Area, Measured Nett.		
Lowest or Basis Tender.	Cubic Contents.	Price per Foot Cube.	Lowest or Basis Tender.	Nett Super Area of Floors.	Price per Foot Super.
£11,611	185,062	1*s.* 3.06*d.*	£11,611	11,829	19*s.* 7*d.*

Proportional Values of Trades in Percentages.

Preliminaries.	Spot Items.	Excavator and Concretor.	Bricklayer.	Drainage.
2.65	.21	10.9	23.1	2.1
Mason.	**Tiler.**	**Carpenter, Joiner and Ironmonger.**	**Founder and Smith.**	**Plasterer.**
6.98	—	21.32	18.77	1.72
Plumber.	**Glazier.**	**Painter.**	**Contingencies.**	**Insurances, Fees and Typing.**
3.03	1.45	2.96	1.91	2.9

EXPERIMENTS ON FUEL CONSUMPTION IN WORKING-CLASS TENEMENTS.*—III

Scheme III.—This scheme consisting of a combination of boiler and oven with radiators is, in the usual conditions of a fully-occupied house, the most economical of all in fuel alone. It is also the most convenient where the work in the house is intensive and somewhat continuous, There cooking is frequently required at irregular times, where all-day heating of more than one room is required throughout the winter, and where a constant supply of hot water is desirable. Generally, where several persons are in daily occupation of a building of this character, there is no doubt that a combination of some such range as that already mentioned, with radiators and secondary hot-water supply cylinders, is the most economical as well as the most comfortable for all the overall requirements of the house

The warming of any of the rooms in which radiators are fixed can be provided for by opening a valve. Hot water is continuously generated and can be obtained at any time for any purpose. Cooking can also be done at any time as the appliance in ordinary use is kept hot throughout the day. The usual average consumption of fuel for free use is from 25 to 50 lbs. a day, or 1½ to 3 cwts. a week for the winter months and 1 cwt. a week for the summer months. The total burnt in twelve months in these experiments was 45 cwt. This consumption was for one person only with visitors, and would doubtless have been somewhat increased if more than one person had to be constantly provided for. The total consumption is not in proportion to the number of persons.

The cost of solid fuel consumed throughout a year is much less than that of an all-gas outfit where a number of persons are to be provided for, and is certainly less than would be necessary if equivalent service were given by any of the other methods.

The temperature maintained in a house so dealt with is comfortable everywhere throughout the year, even in the coldest weather. Any or all of the rooms can be used at any time, and all the contents of the house are kept dry. There are states of the atmosphere where moist, warm weather supervenes on very cold weather. In such conditions every part of the interior of a house is often covered with a film of moisture. This moisture is entirely absent in a case of a house dealt with on this principle. There is no comparison between the combined general comfort and economy of a house dealt with in this way and in any other way that the author has had experience of. The amount of labour required is inconsiderable, and consists in four or five stokings in twenty-four hours, each consisting generally of about 6 to 8 lb. of fuel, with daily removal of ashes and clinkering of furnace. With this amount of labour, the fire in the apparatus can be maintained day and night. The ashes have to be removed daily, together with any soot that has accumulated. With any such requirements, therefore, this method is incomparably the most comfortable.

The principal and almost the only considerable drawback to the use of the apparatus is found in the hot days of summer, when the use of the apparatus makes a small kitchen uncomfortably hot and generates more hot water than is required, which often leads the careful housewife to allow the fire to go out. It has then to be relighted when required. When such an apparatus is supplemented by the discreet use of gas the advantages are greatly increased and the inconvenience diminished, and the total cost not notably increased. Small gas fires, in addition, in the sitting-rooms are a great boon, and a gas cooking range, in addition to the other, adds greatly to the convenience of operation.

The first cost of the whole of the outfit dealt with in these experiments was about £65, including the cooking range, four radiators, tanks, cylinders, &c. This is certainly not considerably, if at all, in excess of the corresponding cost of any other outfit, especially when the chimneys, fireplaces, &c., are included. If a large number of these installations were ordered on contract, the price would be about £35 to £40. With a fully-occupied house, therefore, this method of dealing with it appears to be the most effective and economical, especially if supplemented with small gas fires in the respective rooms for additional comfort and occasional heating.

The psychological value of the glowing fire, even of small dimensions, is very great, and if combined with general warmth, such as that obtained from a relatively small radiator, this combination represents the highest degree of comfort obtainable. The use of this appliance dispenses altogether with the use of smoky coal. Nothing but coke need be used in the "Cookanheat," though sometimes a little coal is of advantage where intensive use is required for igniting or cooking.

Observations on Combination No. IV.—This consisted, as stated above, of the use of local stoves for room warming, with gas for all other services, including hot-water supply, cooking, and, of course, lighting.

In the particular circumstances of tenant No. 2 this method was the most economical of all those tried, for the reason that normally and for the greater part of the year one room only was in regular daily occupation. In these circumstances the most economical method of warming one single room is that of a local stove of closed-combustion type, but for general heating it is evident that Scheme 3, consisting of stove and radiators, would have been the most suitable. For these particular requirements, however, this last combination, No. 4, is the best for combined economy and convenience that could easily be devised. It provides not only for the maximum of economy in fuel, but also for the maximum degree of comfort and convenience. The tenant's report on this arrangement was that for her own purposes she preferred it to any of the others, as it provided everything she required. But if she had had to provide for other persons beside herself, she would have preferred the arrangement of special stove with radiators, as this produces much more equable temperature throughout the house, and was considerably more comfortable for all the rooms except the particular one in occupation the whole day. Further, arrangement No. 3 kept the house drier, and did not call for any special preparation or arrangement to be made when a bath was desired, as it could be taken at any time. Any other operation requiring a large use of hot water, such as laundry work or house-cleaning, could be performed at any time, as the hot-water supply was always hot. But as this tenant was a woman of regular habits, such considerations did not weigh very heavily. If there had been more than one person, they would have had a much greater importance.

Arrangem nt No. V consisted of a special cooking range, designed by the author to embody all the principles of economy which a long course of experimentation in the laboratory had led him to conceive as likely to give the greatest economy in practice. The various experiments in the laboratory have shown that this appliance has an extraordinary degree of economy for cooking and hot-water supply. For the cooking of a meal it uses considerably less than half the fuel used by any other combination tested. It was therefore installed in this cottage, No. 2, and the tenant was instructed to use it when occasion served and to take careful observations of the fuel used. A high degree of economy was achieved, but the position in which it was necessary to instal the apparatus was so inconvenient for other purposes that it could not be used in practice as the sole permanent equipment to serve the requirements of the whole house. Apart from this, it would serve as a

* Conclusion of a Report by Mr. Arthur H. Barker, M.Inst.C.E., B.Sc.

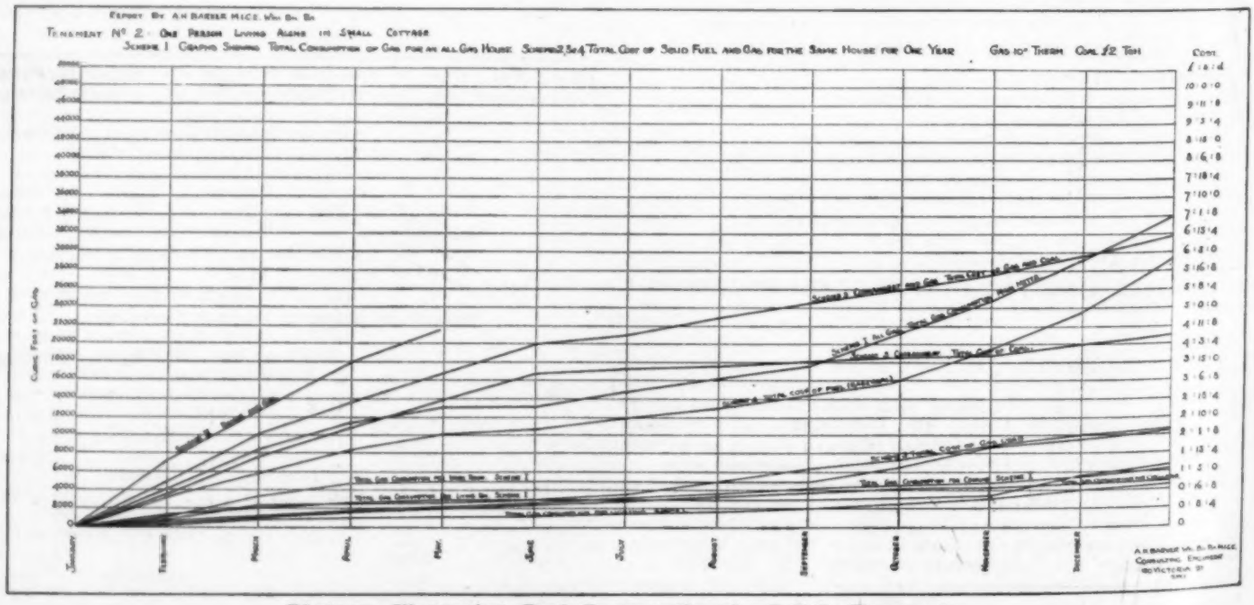

Report By A.H. Barker M.I.C.E. Wh. Sc. B.
Tenement No. 2. One Person Living Alone in Small Cottage
Scheme 1 Graphs Showing Total Consumption of Gas for an all Gas House. Schemes 2, 3 & 4 Total Cost of Solid Fuel and Gas for the Same House for One Year. Gas 10d Therm. Coal £2 Ton
Cost
Cubic Feet of Gas
January
February
March
April
May
June
July
August
September
October
November
December
A.H. Barker M.I.C.E. Wh. Sc. B.
Consulting Engineer
Victoria St.

Diagram Illustrating Fuel Consumption in L.C.C Tenements.

cooking range, and also for the supply of hot water for several persons, at a fuel consumption which is quite small.

For a total consumption of less than 1 cwt. per week it would supply all the requirements of such a household for cooking and hot-water supply only. It is not included with the general results given in the diagram, partly because it has not been worked continuously, as its position is here so inconvenient that it cannot be called a satisfactory equipment from the practical point of view. When used for cooking and for the supply of hot water, however, there is no such difficulty.

GENERAL CONCLUSIONS.—The conclusions that became apparent from a consideration of the results of these interesting experiments are :—

(1) That it is impossible to lay down generally what is the most economical equipment for all kinds of tenants. It depends entirely on the character of the tenant, the nature of her responsibilities and occupation, the number of persons to be provided for, the degree to which a certain amount of money may be sacrificed to increase convenience and saving of time.

(2) With persons situated as No. 1 was there can be no question that the most suitable equipment in every way is an all-gas one in which both heating, cooking, and hot-water supply are supplied solely by gas.

In the case of persons whose time is definitely of commercial value the difference between the cost of the cheapest methods and gas was less than the value of the time lost in operating the cheaper methods.

(3) Where the use of one room in a house only is required all day, a closed stove for warming and gas fires for other rooms occasionally used, is the most economical equipment, with separate hot-water supply and cooking apparatus.

(4) Where a number of rooms in the house are required to be heated all day, or where various rooms are frequently required to be used, a circulation of hot water to radiators is most economical as well as the most comfortable.

(5) A combined cooking and hot-water supply coal range is rarely or never economical and convenient unless the cooking part of the equipment is supplemented by gas, or unless the service required is almost continuous. An independent range is much more economical than a built-in one. Great variations exist between the fuel consumption of different ranges in doing the same work.

(6) Hot-water supply is most economically provided for by gas in cases where the requirements are small and where the required supply is intermittent and well-defined, *e.g.*, the provision of isolated baths, and where the supply is not required to be kept continuously hot, and where a long delay in heating the supply and a considerable amount of labour are undesirable. Where the opposite conditions occur the supply is most economically provided by a coke-fired boiler with secondary heating.

Such are the impressions made on my mind by this interesting series of tests. Deductions from them would be valuable when applied to household of an entirely different type. Some of these observations are added below, and also general observations on the provision of cooking and heating and hot-water supply appliances for housing schemes in general.

It is quite evident that the houses in a case such as this are liable to be used for all sorts of different families, and that there are a number of different types of family to be provided for and that any particular house on the estate should be made suitable for *any* tenant according to the type of family and perhaps the wishes of the tenant.

The conclusion pressed on the author's mind by these experiments is that the houses in a large estate ought to be designed so that they can quite conveniently be supplied with cooking and heating equipment of several different types such that the equipment can be changed without considerable trouble; as easily, for instance, as a gas stove can be changed for another one. Generally the type of inhabitants which it appears to the author should be provided for are as follows :—

(1) The full and busy well-to-do household, consisting of several adults of whom two, three or more may be out at daily work, and who are apt to come home and require meals at different times. Such households are those of an artisan having a more or less grown-up family with children ranging in age from extreme youth to adult, possibly having some children married. For such a household some such arrangement as the "Cookanheat" with radiators of special type is in the author's view preferable, especially when supplemented by a certain number of gas appliances which might very well be rented by the tenant. The cost of such an equipment supplied and fixed in large quantities is low.

(2) The second type of household is that of the young married couple with or without a child or other duties to keep the woman more or less at home when the man is away at business all day, the woman being at home and requiring for her needs a warm room. Such a solid fuel stove, convertible into an open fire, is most to be desired with gas for cooking and hot-water supply.

(3) The third type of household is that of the single person living alone, or a couple both of whom are out all day.

For this type the all-gas outfit is both cheaper and more convenient than any other.

It remains to be discussed how the whole of the houses on a building estate could be designed in such a way that they could be equipped in accordance with the tenants' various requirements in the above sense, and in accordance with the public interest. The features to be looked for in an installation of this kind are : That it should provide conveniently every possible need of the tenant; that, in order to be smokeless, all solid fuel appliances should be capable of being used exclusively with coke or semi-coke instead of raw coal; that it should be supplemented by economical gas appliances, and that the tenant should be able to choose what fittings she will have, under the advice of the Council's officials, and that no smoky fuel be allowed to be used and no extravagant or unsuitable fittings.

The houses should be designed in all cases with a special position in the kitchen in which either a special or an ordinary independent range or a small hot-water supply boiler or other similar appliance should be fixed with an appropriate chimney reaching to the roof, which would serve for any such appliance.

Above this should be fixed a cylinder of about 25 to 50 gallons capacity according to requirements, heated either by coke or gas as required, well coated with non-conducting composition, and with a secondary pipe coil or radiator inside. This cylinder would then be available for whatever type of boiler was decided upon.

When houses are built, apertures should be left through the walls and ceilings, in carefully designed standard positions, through which would pass the pipes for the radiator installation if such were desired to be installed. The whole heating apparatus could be standard and could be fixed complete or removed in a couple of days by expert fitters, if the place and the scheme were designed for the purpose before the house was built.

The living rooms and bedrooms should be provided with a tiled out recess in which any removable type of heating or cooking appliance suitable for the particular tenant could be installed, to provide for cases where the tenant desires the cooking to be done in the living room. The bedrooms should have only a small 4 in. by 4 in. or 6 in. by 6 in. flue for gas heating, or for a small coke stove. The most economical form of such an appliance for heating the single room only would be some form of closed stove which can be opened for use as an open fire when necessary; but any type of open fire or a gas fire could be fixed there as the tenants wished, or a special appliance provided with a hot chamber for keeping food warm, or perhaps a top for boiling a kettle.

GAS CONNECTIONS.—In all cases, in the author's view, gas should be run to all points, so that the tenant can have a gas fire anywhere where he so desires. If the pipes are put in when the house is built the cost is very small. Everything possible should be done to encourage the use of gas instead of coke or coal, except for continuous heating. All these appliances should be supplied by the housing committee, should be of known economical design, and a rent charged for them in addition to the rent of the house. They would be removable in the same sense as a gas cooker is removable, and with even less trouble than would be involved in the removal of the gas cooker. Gas points should also be taken to such a position that a gas-heated hot-water supply can be installed if desired in conjunction with the cylinder. The hot-water supply should be on a secondary principle, so that the boiler needs no scaling or cleaning. A special mechanic should be appointed to keep in order the gas fittings, at a small charge per visit, payable with the weekly rent, or in cash at the time the work is done.

If this were done there would be an entirely smokeless estate, which is a very great consideration. Further, the whole of the fuel should be supplied as near cost price as possible to the estate by the housing committee instead of by the numerous coal hawkers and vendors who now infest all those housing estates with their cries, their bad fuel, and their short weight.

If these suggestions were adopted, a tenant on making application to rent one of the houses could be advised by the Council officials what type of cooking appliances he should have, and this could be supplied and changed if and when necessary, a corresponding charge being made by the Council for changing one apparatus for another. Such charges would be payable with the weekly rent.

It has been definitely proved by these experiments that a laboratory test of a cooking appliance is a reliable guide to its practical efficiency. The author holds a strong view that no appliance should be supplied in large quantities to housing estates until it has been exhaustively tested in an independent laboratory. It is not possible for anybody by inspecting it or even by using it in the ordinary way to determine the efficiency or economy of any appliance, but only by a very careful and difficult test carried out under exact conditions in a laboratory.

The author has made numerous other experiments in this installation for determining economical methods of performing domestic operations requiring the use of heat. These detailed results are unsuitable for a report such as the present. They will be available in the publication of the main report in a few months time.

(*Concluded.*)

BLACKHEATH: THE STORY OF THE ROYAL HUNDRED.*

This is a valuable addition to the series of local guide books. The book, however, is something more than a guide; it is a condensed story of Blackheath from Anglo-Saxon times to the present day. Professor J. E. G. de Montmorency in his Foreword speaks of Blackheath as being "the longest inhabited area of Britain," and in a few words he touches on factors ranging from Roman times to the Elizabethan age. In an admirable series of pen drawings the author illustrates his letterpress by picturing scenes which are the very essentials of the district. There is an attractive map showing the aspect of the Common and surroundings in 1741, a particularly charming drawing of the Ranger's House and illustrations of Morden College. Other drawings include the Heath from Chesterfield Walk, Greenwich Hospital, and Nelson-street, Greenwich. Mr. Baker has a style of draughtsmanship which is most suitable to topographical drawings. At times he is a little hard, particularly when he attempts such early nineteenth-century buildings as St. Michael's Church. But, notwithstanding this fault, his drawings are most suitable for reproduction. From our knowledge of ordinary guide books, and the banalities they usually reveal both in text and illustrations, this book is a welcome change and justifies a good reception.

* By Gerard L. Baker. (Published by the Modern Society, at the Sign of the New Argosy, Blackheath Village. S.E.3.)

SPECIFICATIONS.—XVII

By H. V. MILNES EMERSON, A.R.I.B.A.

SHOP FRONT, &c.

Item.

261. Butler's Pantry Sink.—Fit up sink in butler's pantry 2 ft. 6 in. by 1 ft. 6 in. by 1 ft. 3 in. deep in the clear on 3 in. by 3 in. wrot framed deal legs and bearers plugged to walls. The sink to be of 1½ in. wrot deal glued and dovetailed at angles, with 1½ in. grooves and rebated wrot deal bottom screwed on and dished to outlet in centre. To have 1½ in. by 1½ in. rounded oak or teak hosing screwed on front. Finish the inside of sink with splayed angle fillets for lead lining. Fix 1½ in. wrot fluted teak draining board on wrot deal bearers with 2 in. by 1½ in. teak fillet on front edge. Finish round sides with 7 in. by ¾ in. chamfered deal or teak skirting plugged to walls, with dovetailed angles. To be fixed 3 ft. from floor to top of sink.

262. Housemaid's Sink.—This would be similar to that specified for butler's pantry. If enclosed, specify as follows:—

Enclose sink with 1 in. beaded frame with fillet stops and hang in same on pair 3 in. brass butts 1 in. square framed one panel doors, with rebated and beaded heating styles, and fitted with 3 in. brass neck bolt, 2 in. brass turnbuckle and plate, and two 1½ in. brass knobs.

263. Foot Boards.—Form movable footboards to sinks . . . ft. long by . . . ft. wide, with 2 in. by 1½ in. or 1½ in. wrot deal or hardwood battens chamfered on edges spaced ¾ in. apart and screwed to 3 in. by 2 in. wrot deal or hardwood cut bearers every . . . ft. apart, the end bearers being placed ½ in. back from ends of battens.

264. Plate Rack.—Form plate rack in deal, or hardwood, in . . . tiers . . . ft. long, with 1½ in. by 1½ in. or 2 in. by 2 in. dovetailed framing, with edges slightly rounded, and ⅜ in. or smaller diameter bars spaced 1½ in. to 3 in. apart and secured to wall with strong galvanised brackets and holdfasts, or provide p.c. . . . for plate rack and fix as before described.

265. China or Other Store with Shelving.—Fit up to . . . sides of store three or four tiers of 1 in. wrot deal cross-tongued shelving to the widths shown on drawing, with slightly rounded edges, fixed to 3 in. by 2 in. or 2 in. by 2 in. wrot deal dovetailed rails and bearers, and 2 in. by 2 in. uprights every . . . ft. apart, all with chamfered edges. Provide . . . doz. brass cup and jug hooks and fix where directed.

266. Meter Shelves.—Fix where directed, 1 in. deal wrot shelf and brackets for .... light meter.

267. Shelving.—Fix up in larder and food cupboards two or more tiers of ⅞ in. cross-tongued shelving in lower part and one tier in upper part of the widths shown, supported on 2 in. by 1 in. chamfered bearers plugged to walls, and, where necessary, strong japanned iron shelf brackets 10 in. by 9 in., screwed to 2 in. by 1 in. fillets, the shelves to be kept ½ in. clear of the wall at the back.

The lower tier of shelves in larder to be supported on 3 in. by 2 in. wrot deal legs and bearers framed together, dowelled to floor and cut and pinned into walls.

Fit up in scullery two tiers of open batten shelving formed of 2 in. by ¾ in. battens spaced ½ in. apart, carried on gallows brackets, 12 in. by 9 in., formed of 1½ in. by 1 in. wrot deal, securely plugged to walls.

Fit up cupboard in .... room with one or more tiers of ⅞ in. or 1 in. cross-tongued shelving, fixed as before described, with 4 in. by 1 in. twice chamfered rail under; provide and fix to each rail .... brass or japanned iron hat and coat hooks.

Provide and fix in store room, &c., .. ft. super of 1 in. deal wrot both sides shelving, as will be directed, supported on 2 in. by 1½ in. framed bearers and uprights.

Provide and fix to walls where directed .. ft. run 11 in. by 1 in. wrot deal shelves with rounded corners, edges slightly chamfered and screwed to galvanised iron brackets every 4 ft. apart, screwed to plugs in the wall.

268. Pipe Rail.—Provide and fix where required .. ft. run of 2 in. by 2 in. wrot deal, chamfered and grooved pipe rail.

269. Pipe Casing.—Provide .. ft. super of 1 in. wrot deal pipe casing fixed with brass caps and screws to 2 in. by 1½ in. rebated, beaded, and framed grounds.

270. Enclosures to Feed Cisterns, &c.—Feed cisterns to have ⅝ in. match-beaded and ledged front and sides with beaded angles, and ⅝ in. clamped top, hung with 2 in. steel butts to bearer fixed to walls. To have 4 in. iron straight cupboard lock to each.

Cistern cover to be formed with ¾ in. deal matched boarding on chamfered ledges; those to large cisterns to have a portion hung as opening flap, with pair of 12 in. cross garnets.

271. Back Boards.—Peel 18 in. by 11 in. deal chamfered all-round back boards for brackets of flushing cisterns plugged to walls.

272. W.C. Seats.—Fix to each w.c., unless otherwise described, a birch seat in two thicknesses, bodied in, with back rail to suit P or S traps as required, rounded and shaped skirting, rubber buffers, hung on strong brass side hinges.

The seat to be secured to the skirting by two 3 in. screws, and the skirting is to be similarly secured to plugs in the wall.

The seat to .... will be similar to above, but in mahogany and French polished.

Note.—W.C. seats are made in various patterns and are generally selected ready-made.

273. Copper Lid.—To be in two thicknesses of 1 in. deal reversed and pinned together with cut, shaped, and rounded handle fixed with four stout copper screws.

274. Water Butts.—Provide No. .. sound butts, each of 40 gall. capacity, fit same with ¾ in. oak lids ledged, screwed, and holed for down pipe, and fitted with ¾ in. lead overflow pipe, and fix in level position on brick piers.

275. Shop Front.—The stall board to be 2 in. moulded and square framed one panel high rebated deal, or hardwood, framing tongued and mitred at angle and 1½ in. by 9 in. moulded skirting on backings. Skirting to be kept above paving with 1 in. by 2 in. marble or slate slip.

Show board framing to be formed with 4 in. by 4 in. head, cills and end posts with 4 in. by 2 in. uprights not more than 2 ft. apart and 4 in. by 2 in. bearers every 12 in. apart, and lay 1 in. wrot deal tongued and grooved boarding to same with rounded nosing and small mould, 1½ in. moulded and square framed panelling one panel high enclosure under, with 9 in. by 1 in. moulded skirting. Form access doors under show board with similar framing in beaded frames hung on pair 3 in. brass butts and fitted with lock and furniture, p.c. . . .

The shop front to be in Honduras mahogany, oak, or other wood, with 4 in. by 3 in. rebated and moulded frame grooved for linings, 4 in. by 3 in. twice rebated, twice moulded, transom and mullions, transom groove for moulding rebated on and 4 in. by 3 in. rebated and moulded twice grooved and weathered sill. All to be provided with ½ in. loose glazing beads with brass cups and screws.

Fill in fanlights with 2 in. moulded sashes, with loose beads as before and hung on 3 in. brass butts, and fitted with brass quadrant stays and spring catches, or opening gear, p.c. . . .

Shop doors to be 2 in. deal or hardwood, square framed . . . panelled with bolection mouldings and raised and splayed panels, with moulded label and apron outside on lock rail, and flush beaded at back, or moulded, with rebated meeting styles hung to 5 in. by 4 in. rebated, moulded, and beaded frame with three 5 in. brass butts to each leaf. To have 5 in. by 4 in. twice rebated, moulded and twice beaded transom, and 2 in. moulded fixed fanlight over with rebated and moulded glazing bars and loose beads for glass.

Fit up door with one 12 in. and one 18 in. strong brass barrel bolts, night latch, p.c. . . . letter flap, p.c. . . . with perforation through door, letter box, p.c. . . . and brass chain and slot, p.c. . . .

Lobb soffit to be 2 in. moulded and square panelled framing with small cornice mould.

Window enclosure to be 1½ in. or 2 in. deal or hardwood square framed moulded both sides panelling rebated to window board and soffit (moulded one side where against wall) with rebated and beaded access door hung on pair 3 in. brass butts and fitted with lock and furniture, p.c. . . .

The windows soffit to be 1½ in. deal or hardwood square panelled framing moulded one side rebated to transom (or to head of shop front) and grooved for enclosure panelling. To have moulded or rounded edge with small moulding under to enclosure (when fixed at transom level). To have small mould around as cornice, or cover mould.

The window board to be in 1 in. tongued and grooved and secret nailed oak, or other wood in narrow widths, or parquet flooring, laid upon deal flooring before specified and raised . . . in. above bottom glass line, with sloping front in oak, &c., as before specified.

Fascia to be 1 in. Honduras mahogany, oak or other wood, tongued and grooved, beaded or moulded, fixed with brass cups and screws to deal cradling formed with 4 in. by 3 in. head, cill and posts, the latter spaced not more than 2 ft. 6 in. apart with ½ in. wrought iron bolt, and washers to each stud. To have 2 in. by 2 in. necking mould planted on.

The entablature to have 6 in. by 3 in. moulded cornice, 5½ in. by 2 in. moulded frieze (as lath for sun blind) and 4 in. by 3 in. mould under (with fascia under same) all to be grooved and rebated together with brackets, backings, bearers and stiffeners in wood and iron as necessary, and with 1 in. grooved and tongued boarding on top to receive lead covering.

Where the blind box is on top of the cornice with a gutter at the back to be 1½ in. deal or hardwood, weathered, grooved, rebated box framing with small mould under top edge, and opening in front for blind and lath.

The sun blind to be of the best pure flax white or cream duck canvas mounted on strong continuous spiral steel springs, encased in stout metal barrels, with moulded lath in deal or hardwood, strong jointed solid iron supporting arms, carefully forged to contour of entablature, and brackets and joints. Provide a 6 ft. long arm, with brass (or steel) hook.

Leadwork and R.W.P.—This can be specified here as follows, or under plumber.

Cover top of cornice and blind box, and form gutter at back with 5 lbs. lead close copper-nailed with 5 lbs. lead flashing, wedged and pointed up in cement. Take 3 in. rain-water pipe to pavement level, and continue to gutter with a cast-iron pavement surface gutter, or discharge over drain gulley.

The gilded wood block letters to be made of selected, sound and thoroughly seasoned pine primed and painted five coats of genuine white lead oil colour and gilded with warranted 22 ct. English gold leaf.

New Bermondsey Baths.

The Mayor of Bermondsey has laid the foundation-stone of the new Bermondsey baths and wash-houses in Grange-road. The cost is estimated at £140,000.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting!—ED.

Cost of Painting Job.

[REPLY TO "MODERATE," APRIL 9.]

SIR,—I am pleased to supply "Moderate" with figures to prove the percentage to represent National Health and Unemployment Insurance, &c. The employer's contribution is 1s. 5d. per week of 44 hours. Let us take a painter at 1s. 6d. per hour (£3 6s. per week). The insurance is equal to 2.1 per cent. If the man loses any hours or is paid at a lower rate the percentage increases. In the year 1924–5 my own firm's contribution for insurance on all trades was actually 2.16 per cent. The Pension scheme is now an addition, and if there is an equal percentage of skilled and unskilled labour it will be found that with rates at 1s. 6d. and 1s. 2d. per hour the percentage for insurance is 2.42.

Workmen's Compensation Insurance for general hands is about 20s. per £100 of wages paid, which equals 1 per cent. Higher rates are often charged for a business confined to a particular trade, and painting would probably come under this heading. The rate for joiner machinists is, of course, much heavier.

To say that the labour proportion in the painting trade is no higher than in any other building work is absurd. The cost of material in painting work is very little in comparison.

With regard to establishment charges, these should include salaries to office staff, stationery, postages, telephone, fire insurance, rent, rates, taxes, lighting, fuel, auditor, &c., bank charges, and if all this can be done for, say, £250 on a turnover of £5,000, then I, for one, would like to be let into the secret. There would be no question of over-staffing but more likely of underpaying.

When "Moderate" talks of inefficient shop plant, if he refers to the building trade generally, I agree there is a deal of leakage unless this is kept up to date, but with the present-day reliable R.M. paints, &c., one's shop plant for the painting trade is a very small item. Brushes still are a heavy expense.

RENRUT.

Sewer Question.

[REPLY TO "WORKS," APRIL 30.]

SIR,—On the facts stated and the sketch plan accompanying them, the length of conduit C to D could not be termed a "sewer" though if and when laid it will of course be vested in and controlled by the local authority. Nor does the fact that it is laid in a public footpath affect the question. "Works," under Section 21 of the Public Health Act, 1875, has a right to drain the house A into the sewer in the road at C, and under Section 23 of the Act the local authority may enforce him to do so if the house A is not more than 100 ft. from the sewer at C. Further, under Section 25 of the Act, it is not lawful in any urban district, newly to erect or to rebuild any house or to occupy any house newly erected or rebuilt, unless and until proper drains have been provided for the effectual drainage of the house. The drain or drains so constructed are to empty any sewer within 100 ft. from the site of the house, or if no such means of drainage is within that distance, then into such covered cesspool or other place as the urban authority may direct. Section 36 of the Public Health Act, 1925, provides that the Court may, in addition to or in lieu of imposing a penalty or contravention, order that the drains shall be laid, relaid, amended or remade as the case may require.

Under Section 4 of the Act of 1875 "drain" means any drain of and used for the drainage of one building only or of buildings in one curtilage, and "sewer" includes sewers and drains of every description, except drains to which the word drain interpreted as aforesaid applies. In short, therefore, a "sewer" receives the drainage of two or more houses.

Now, although Section 19 of the Public Health Amendment Act, 1890, when it is in force, provides that where two or more houses belonging to different owners are connected with a public sewer by a single private drain, such drain may, for certain purposes, be treated as a "drain" and not as a "sewer," yet the definition of "drain" in the 1875 Act above referred to, still imposes on the local authority the liability to repair the length of conduit from the point of junction of the drain from one building with the drain from an adjoining building (not within the same curtilage to the "sewer." But in the case under review the length of conduit C to D is shown to take the drainage of one house only, and is therefore not a "sewer," and at present it cannot be treated as a "drain" under this section, but as a "drain" under the Act of 1875.

Under Section 16 of the Public Health Act, 1875, a local authority had full powers to make "sewers" in private streets and under private lands; but these powers did not extend to "drains." Now, under Section 37 of the Act of 1925, the local authority can, if it thinks fit, lay "drains" in private streets by agreement with and at the expense of any person owning or occupying premises abutting on any street. But this only applies to such drains as may be requisite or proper for connecting the premises with any sewer which has been laid in the street already. The streets to which this section relates are streets not reparable by the inhabitants at large. They may or may not be highways in the sense of having been dedicated to public use, and they are not vested in the local authority as highways are in an urban district reparable by the district council. The soil of them belongs, it is presumed, to the owners of adjoining lands. The section last referred to enables the local authority to lay "drains" in such a street to connect to the "sewer" in that street even though it has no property in the soil of the street; and, too, the person for whose benefit the work is done may also have no such property. The power conferred by the section is limited to the making of "drains."

It follows from the above that where there is a private street and in it there is a sewer, laid by the local authority or by private persons, the local authority may now construct house drains connecting with that sewer.

In the public footpath shown in the sketch plan there is no sewer; therefore it would appear, that the local authority cannot lay a conduit from C to D without the consent of B.

LAW.

Fixing Portable Copper.

[REPLY TO "W.," APRIL 23.]

SIR,—Unless there is a by-law requiring such procedure, it is not necessary to provide a brick flue to serve a portable copper in such a case as that quoted, where the ceilings and floors through which it passes are of fire-resisting construction. If there is any timber work to pass near, it would certainly be correct to build the flue in brick and trim all timbers round it.

SUFFICIENT.

Steelwork Formula.

[REPLY TO "E. F.," APRIL 23.]

SIR,—I should recommend Middleton's "Stresses and Strains" as a good work to study for the formulæ required.

THEORY.

Fire Cracking in Cement Finish.

[REPLY TO "McE.," APRIL 23.]

SIR,—The new treated cement mentioned in these columns in a recent issue is exactly the material required for both preventing and making good to cement cracks. The material is practically fireproof (not merely resisting), and in mixing it expands materially in bulk, so as to fill out the tiniest interstices. It would probably not serve for pavings, however, and I believe the makers advise to this effect. No doubt the Editor would forward the name of the makers if so requested.

IMPRESSED.

THE BUDGET

THERE is little in the Budget statement of the Chancellor of the Exchequer which can excite real controversy, unless it be the betting tax and the proposal to transfer seven millions from the Road Fund to the Exchequer. As regards the Road Fund, there is a similarity between the Post Office and this Fund. It used to be considered that the Post Office should only pay its way and that any spare revenue should be applied to reducing postal, telegraph and telephone charges. The exigencies of the war made a departure from this principle necessary, and whilst postage is three halfpence the Post Office contributes a considerable sum to the Exchequer. Advocates for the retention of the Road Fund claim that the whole revenue should either be expended on the roads or go to relief of those who contribute it. There is a close parallel between the two cases, and at the present crisis we think Mr. Churchill made out his case that this fund should at the moment contribute to the national necessity.

The one feature of an otherwise colourless Budget is that there has been no attempt for spectacular effect, but that the nation's credit is the first consideration and the contribution taken last year to the detriment of the sinking fund is to be made good. The country's credit is the first consideration and its greatest asset. The wage-earners would be the first to suffer were the nation's credit to be impaired, and it is refreshing to compare the statesmanship disclosed in the Budget statement with Mr. Wheatley's utterance the previous day that wages must be maintained and that the only way out of the present situation was the national organisation of the distribution of wealth. It seems idle to make those statements when they are contradicted by facts. Russia has tried the experiment, and what is the result to the wage-earner? Wages, if paid at all, are most miserable, and it is strange that such statements should find an audience at all in a country like ours, where wages are higher and hours shorter than in most countries in the world, and whilst the United States, which is one of the few exceptions to this, is the country the very farthest removed from adopting Mr. Wheatley's principles.

TECHNICAL EDUCATION AND BUILDING

NEXT month a conference is to be held at Ilkley, under the auspices of the Board of Education, to deal with the methods of instruction to be followed in dealing with students of modern building and to consider how far recent changes in the industry will effect such instruction. At the main meeting of the conference Sir Charles Ruthen, Director-General of Housing, will deliver an address on "Housing and Its Problems." Sir Edwin Airey, of Leeds, is to take the chair at this meeting, and it is hoped that a number of representatives of the building industry and of the associated professions, who are interested in the question of technical education, will be present. At the earlier meetings Mr. Martin Shaw Briggs, H.M.I., will deal with the problem of improving drawing and craftsmanship in the schools; while Mr. J. L. Manson, H.M.I.—who is organising the conference on behalf of the Board of Education—will deal with the question of instruction in the subjects of Geometry, Mathematics and Science as required by building students. The teachers attending the conference will be drawn from the counties of Cheshire, Lancashire and Yorkshire.

Obituary.

The death has occurred at Duston, Northampton, of Mr. Fred W. Dorman, A.R.I.B.A., aged 61, one of the best-known architects in the Northampton district.

"THE BUILDER" CONSTRUCTIONAL PROBLEM COMPETITION

This Competition is limited to students in architecture and building classes or schools, assistants who have not passed the Final of the R.I.B.A., and others engaged in architecture or building, not over 25 years of age. A prize of £1 will be awarded each week for a satisfactory solution.

Drawings to be on paper, tracing paper, or linen, not exceeding 30 in. by 22 in. (Imperial size), and should be in ink, with bold lines and printing, as the drawings, if reproduced, are much reduced in size. The drawings can be sent folded in a large envelope or rolled. Competitors must put their name and address on each drawing. Those who wish to have their drawings, &c., returned must enclose a stamped and addressed adhesive label.

Answers addressed to the Editor and marked "Problem 18," to be sent in not later than first post May 24. The Editor's decision to be final.

Problem No. 15.

The prize of £1 has this week been awarded to Mr. David Perrett, of Southsea, Hants, who describes and illustrates two methods of underpinning the front wall.

The raking shore has rather a long member for No. 4. This is usually in two lengths, the bottom length resting against No. 3, and the upper length placed upon the lower with wedges between the joint to tighten, and braced in the manner shown. The rake of the shore would require a pavement about 15 ft. or more in width. Types of shoring to the windows are shown, but it is not often necessary to remove the frames. The underpinning is then proceeded with in lengths not exceeding 6 ft., the holes excavated and strutted in the usual manner, concrete and footings put in and the brickwork brought up, care being taken in the filling between the brickwork and the excavation on the adjoining owner's side of the party wall.

In the second method needles are employed in order to take the weight of the front wall, as it is assumed that the structure is not sound enough to be dealt with as shown in the first method. The struts must have a solid bearing on the pavement and ground floor; if the latter is not safe then excavate holes down to a firm foundation for same. As the ground floor would be reconstructed the support for the first floor must be on solid ground and not supported as shown from a basement which does not exist at the time this support is required. The struts supporting the needles are too far apart. About 3 to 4 ft. from each face of the wall would be sufficient, the excavation being strutted in the usual way to prevent subsidence.

The winner's report is as follows:—

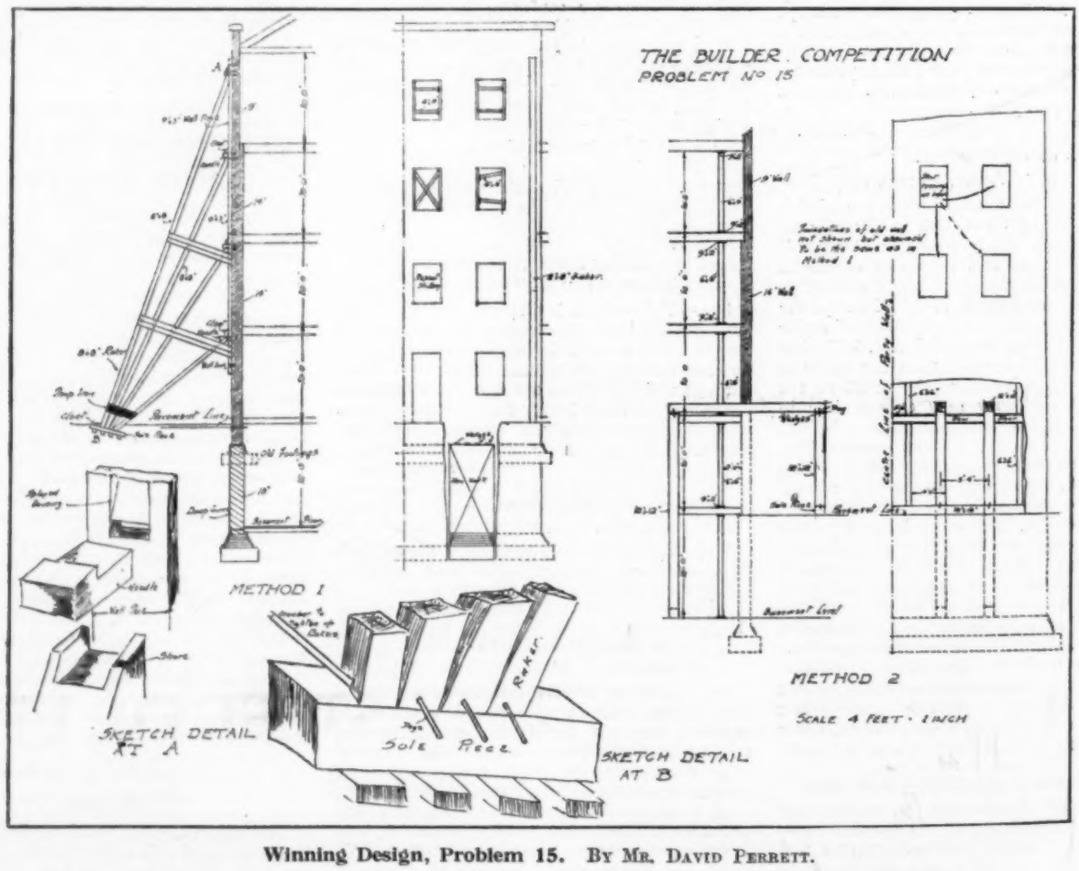
The method of dealing with a problem of this kind is first to take out all windows and frames in the front wall and shore these up with auxiliary shoring which might be simple strutting—4 in. by 2 in. struts would probably be about the right size. The shoring to front and possibly back wall comprises four shores to correspond as shown with thrust from floor and roofs, and having a sole piece at an angle of about 80 deg. to get a grip of the ground, the main shore being about 60 deg. The sizes of timbers depends on circumstances, viz., location of windows and door obstructions, but those shown should be adequate to meet the case. It is usual, of course, to set the lower or shorter shore first, and the others in sequence and cleated as shown. These shores should be at the extremities of the non-basement building. With regard to the proposed basement, the ground must be excavated to the required depth, viz., 12 ft., and a concrete foundation provided. Frequently the old work is strong enough to dispense with needle shoring, in which case the work would be done in short lengths. The joint between new and old work being neatly finished off with stone where needle shoring is resorted to, precautions must be taken to obviate damaged floors and ceilings, and it has been known for temporary purlins to be required to support the roof. Observe that the interior shore must rest on a solid foundation with the outside shore tightly wedged up. Needle need not be of wood, but are often composed of steel joists. It should be noted that the raking shoring to be used in conjunction with the underpinning is not always required, but has been implied in this case.

Problem 18.

Show by means of a diagram a system of domestic hot-water supply for a four-storied house with kitchen in basement, cold water storage tank in roof, and sinks, baths and lavatories on each floor. Sketch details of the boiler and cylinder showing positions of flow and return pipes at entry and exit of each. State what precautions should be taken at the entry of cold feed pipe to hot-water system, and what result you would expect the system to give upon testing. What materials would you use for the boilers and pipes when (*a*) the water is hard, and (*b*) for a soft water.

New British Standard Specifications for Paint Materials.

The British Engineering Standards Association has recently issued British Standard Specification No. 217 (1926), Red Lead for Paints; and No. 242 (1926), Refined Linseed Oil for Paints. These specifications contain clauses regulating the composition, together with standard reception tests for the purchase of red-lead and refined linseed oil, and appendices giving the methods of carrying out the tests. The specifications have been prepared at the request of the paint manufacturers by a committee representative of both buying and manufacturing interests, and, as in the case of all British Standard Specifications, they will be reviewed as experience in their working or progress in the industry renders it necessary, and revised issues will be published from time to time. Copies of these specifications may be obtained from the B.E.S.A., Publications Department, 28, Victoria-street, London, S.W.1; price 1s. 2d. each (post free).



Winning Design, Problem 15. By Mr. David Perrett.

THE BUILDING TRADE

THE NATIONAL FEDERATION OF HOUSE BUILDERS

THE Annual Meeting and Conference of this body was held at the Hotel Cecil on Thursday and Friday, April 29 and 30. At Thursday's meeting, which was largely of a business nature, officers and committee for the year ending February 28, 1927, were elected. Mr. G. F. Darbyshire, the retiring President, then delivered an address, in the course of which he said we had heard with depressing frequency that private enterprise had failed. Whatever might be said with regard to other industries, the house builders' record since the time the subsidy was put on a stable basis had been one of which they might feel justifiably proud. He regretted, however, that certain timorous individuals had been affected adversely by the rumours that had floated about with regard to the coming revision of the Housing Acts. No heed should be taken either of the statements or the rumours. It was essential to success that there should be a measure of continuity of the subsidy until the appalling conditions that existed to-day were relieved. Two of the most progressive cities in England, Manchester and Birmingham, were a sufficient index of the state of affairs. The former estimated a shortage of 20,000, whilst the latter had 17,500 persons on the waiting list, and most of these had been waiting since 1923. It would be very instructive (continued the speaker) if a Member would ask for an estimate of the ultimate national cost of the Wheatley proposals as compared with the national cost for the same number of houses under the 1923 Act of Mr. Chamberlain. He also wondered if they had realised the political significance of creating numerous communities of subsidised tenants all over the country. He was firmly convinced that the house builder, and no one else, could solve this national problem. We had amongst the house builders of the land sufficient energy and sufficient capital to build all the houses required, but they must be able to sell them when they had built them. They were in business to build, and must sell, so that they could build again. It took two to make a bargain in the ordinary way, but under the special circumstances of the present time it took three parties to solve the housing difficulty: the builder, his customer, and the Government to bring them together. The Government could do that and save money. For a fraction of the amount now being poured out like water under the Wheatley Act the Government could get the house builder busy and enable him to offer a fair security to the investor.

Mr. A. J. Belton, the new President, in the course of his Presidential address, said the real difficulty of housing the people was made more difficult by the swarms of well-intentioned, but badly-informed, people who had set themselves up as housing reformers. They had created a great agitation, and as a result the housing of the people was no longer an industry; it had become a system of philanthropy. The only people who were not listened to were the people who built the houses; their opinions were under a dark cloud of suspicion because they sought to make a living by supplying the necessities of the working man. Even now, when all the housing publicity was directed to building by local authorities, it was worth noting that the private builder built more houses than the local authorities every year. According to the latest figures available, the number of houses erected under the 1923 and 1924 Acts was:—

Local Authorities	64,704
Private Builders.....	114,103

Without State assistance private builders had built in 4½ years 256,000 houses, an average of 56,900 per year. The greatest matter of interest to their members (continued the speaker), and in fact the greatest importance to the country, was the future of the State assistance to housing. If there was one thing necessary to get houses built it was confidence. They were now told that there was to be a revision of the subsidy in October next, but they did not know what it was. They could build houses quicker and cheaper than any other agency if they could offer a reasonable investment to the investor. The Government could put them in the position to do this: they could give a subsidy of less than the total present subsidy used by the local authorities, and private enterprise would build houses to rent. He believed if they (the house builders) had the subsidy of £13 10s. used by the local authorities under Mr. Wheatley's Act, or even a less one, free of impossible conditions, they could build all the houses people required. No private builder could use the subsidy provided under the 1924 Act; he could not find purchasers for his houses when they had to be let at rents fixed by the local authority, who might call on the owner any day to reduce them, and when he could not sell his houses without the possibility of the subsidy being reduced. The Act was not intended for the private builder. The building of houses by local authorities had been carried on on the wrong lines. Instead of building small cottages to relieve the pressure and the terrible conditions under which the poorer working man lived, they had built houses suitable in style for the middle classes.

Before any local authority should be allowed to build for sale, they should be obliged to satisfy the Ministry of Health that they had first extended every aid to private enterprise to enable them to furnish the required houses by complying, in their respective areas, with the recommendations of the Ministry of Health with respect to Assistance to Owner Occupiers, Guarantees to Building Societies, Loans to Builders. It was a well-known fact that many local authorities were denying assistance to private builders in many ways, but were embodying all possible assistance in their own schemes only. Referring to building societies ("the house-builders' best friend,") the speaker said he sincerely hoped that the Government would realise that, if they made it possible for any thrifty man who could save £25 to buy his own house by means of generous loans on mortgage, they were on the way to success in the matter and the risk in giving generous loans was infinitesimal. He knew of one co-operative society in the north of England which advanced four million sterling to buyers of cottages who put down ten pounds only. It never had a single loss by default (that was before the war), and that was the principle on which the housing solution must be founded. Referring to building materials, the speaker said that we, as a nation, were deplorably short of several specific goods, and had had to import millions of bricks; thousands of roofing tiles; cement, lead piping, baths, and cast-iron goods generally. Sufficient bricks were imported last year to build seventeen thousand houses of the Government type. Five million pounds worth of cement was brought into the country. It seemed a great pity to have to rely upon imported materials when we had so many people out of employment. Subjected, however, as they were, to the revision of the Subsidy in October next, it would not be conducive to land development and builders "pulling their weight" until some authorised statement was made with regard to the future programme. They were anxiously awaiting an official pronouncement with regard to the future; any change of policy or threat of a change was fatal to the trade, and shook the confidence of the country. In conclusion, he appealed to every member of the Federation to use every endeavour to get every unorganised house builder into their ranks. The Federation had done yeoman service for its members in the past, and it was due to each member to spread abroad the benefits of the organisation.

The Annual Dinner of the Federation was held on Thursday evening, and on Friday morning the Conference assembled to consider the policy of the Federation as to State Assistance.

Mr. G. A. Perks proposed the following resolution:—

"This meeting of the National Federation of House Builders, representing the house-building industry of the country, is of opinion that it is advisable for the Government to declare its intentions as to the revision of the State Subsidy policy after September 30 next, if a serious reduction in house building during the coming months is to be avoided. House builders erecting houses cannot proceed with the preparation of schemes until the policy of the Government as to grants to owners of working-class houses, is made public."

In the course of his remarks, the proposer said if the subsidy should be cut off a serious calamity would befall the building trade and the operatives engaged therein.

Mr. A. I. Windross, seconding the resolution, said if they could not get a continuance of the subsidy, they could not carry on.

Mr. A. Ford supported, and the resolution was carried.

Mr. G. F. Darbyshire then proposed the following resolution:—

"This meeting of the National Federation of House Builders is of opinion that the administration of the loan clauses of the Housing Act, 1925, should be developed and extended, so that any house purchaser should be enabled to secure a house by providing an initial deposit of ten per cent. of the value, and requests the Minister of Health to bring pressure to bear on the local authorities to make this possible by loan or guarantee."

The proposer emphasised the point that it was not necessary to use State money and to strain the Treasury to breaking point. If, however, builders were allowed the £13 10s. grant in aid they could build all the houses required, to let at a reasonable rent, and still make a reasonable profit.

Mr. A. Ford, seconding the resolution, criticised the action of some local authorities in withholding the full 90 per cent. loan. He suggested an amendment to the effect that the full loan should be made compulsory. They wanted, he said, a fair and just valuation.

Mr. J. Pemberton urged that valuation should be more stabilised.

Mr. E. R. Jones said twenty years' purchase was too short and suggested that the period should be extended to thirty years. He proposed an amendment to the effect that local authorities should be compelled to advance the whole of the purchase price (not including subsidy), less £50; but on the Secretary (Mr. Norman McKellan) and other speakers pointing out that the two amendments would involve new legislation, and after speeches by Messrs. C. H. Oldham, J. W. Comber, and George Sadler, the amendments were withdrawn, and the resolution carried.

Mr. C. G. S. Ward then proposed the following resolution:—

"The National Federation of House Builders is of opinion that the local authorities in many cases have failed to provide the houses required by the lower paid workers, and that the Minister of Health should insist that all local authorities housing schemes should be confined to houses the rent of which should be within the means of that class."

This, after being seconded by Mr. Spruit and supported by Messrs. J. W. Comber, Dellow, Selley, McKellen, and Darbyshire, was carried.

A private session of the Conference was held in the afternoon, when consideration was given to Income Tax on Improved Ground Rents and the Registration of the Federation.

CONTRACTS IN RESTRAINT OF TRADE

A RECENT case, "Rely-a-Bell" Burglar and Fire Alarm Co., Ltd., *v.* Eisler and Others (*Weekly Notes*, April 17), raised some points as to how a covenant restraining an employee from doing certain acts in breach of the contract of service could be enforced. On April 5, 1922, an agreement had been entered into between the plaintiff company and Eisler, the first defendant, whereby it was agreed that "the inventor (that was the defendant) during the term of his employment with the company shall not enter into any other employment, but shall do his best to promote the interests of the company, and shall in all respects serve them faithfully, and shall not during the said term be interested in the business of any other company, firm or individual dealing with burglar or fire alarms."

Eisler, in breach of his agreement, left the service of the plaintiffs within the period for which the agreement was made (five years) on November 7, 1925, and on December 4, 1925, was allotted one out of the only four shares in the Ideal Burglary and Fire Protection Corporation, Ltd., and employed by them as engineer. This company had just been incorporated to carry on business as manufacturers and installers of burglary and fire automatic detector alarms.

The plaintiffs claimed (1) a declaration that until April 5, 1927, Eisler was bound not to enter the employment of any company, firm or individual other than the plaintiff company, or to be interested in the business of any other company, firm or individual installing or dealing in burglar or fire alarms; (2) an injunction restraining the defendant in the terms of the declaration asked for above; (3) an injunction restraining the defendant company until April 5, 1927, from employing the defendant; and (4) damages.

The Court, in giving judgment, pointed out that this case was distinguishable from those cited for the defendants which were relied upon in Whitwood Chemical Company *v.* Hardman (1891, 2 Ch. 416), as those authorities dealt with clauses in such agreements which applied when the term of service had come to an end; but in the present case the clause applied during the term of service, viz., providing for undivided and faithful service and for the prevention of an interest conflicting with the servant's duty, and they were valid.

This, however, left open the question of remedy.

The Court held that the case fell within the principle enunciated in Ehrman *v.* Bartholomew (1898, 1 Ch. 671) and Chapman *v.* Westerby (1913, W.N. 277). In the latter case it was held that the effect of the decisions, including those we have mentioned above, in such cases was that a negative stipulation which the Court was asked to enforce must be a stipulation requiring the contracting party not to do some particular act, and to enforce a general stipulation such as the above would involve prohibiting the defendant from earning his living and compelling him to remain idle. It would be enforcing by a grant of specific performance a contract of service, a thing the Court would never do.

In the case under consideration the Court, following the above principle, held that the first part of the above clause (1), which sought to restrain the defendant from entering into the employment of any other company, could not be enforced by injunction and was only the subject of damages; but as regards the second part of the clause, seeking to restrain the defendant from being interested in any other company, that was an obligation capable of being enforced by injunction, and an injunction would be granted restraining the defendant from being interested in the defendant company or other any company business dealing in or installing burglar or fire alarms, with an inquiry as to damages.

THE WEEK IN PARLIAMENT

AT a recent sitting of the House of Lords Lord Peel, First Commissioner of Works, said that since 1925 a considerable addition had been made to the number of monuments entrusted to the charge of the Department. They had taken over, or were in process of taking over, twenty of what might be called major monuments. These comprised old castles, ecclesiastical remains, and remains of the Roman occupation. The old castles were scattered all over the country, ranging from Somerset in the South to the Shetland Islands in the North. The most important were Pickering and Middleham Castles in Yorkshire and Beaumaris and Kidwelly Castle in Wales. Six of the castles which were being taken over were in Scotland, perhaps the most interesting being Yarlshop in the Shetlands. The Department were also taking over the town walls of Denbigh. These walls were an integral part of the scheme of defence of which the castle was a citadel. The castle was already in the charge of the Department as Crown property, but the walls had passed into private hands.

Turning to ecclesiastical remains, Lord Peel said that the Department had made some noteworthy additions to the already impressive list of ruins in their charge. There was first of all Buildwas Abbey in Shropshire, a twelfth-century Cistercian foundation, of which were beautiful remains. The others were Eggleston Abbey in Yorkhsire, Sweetheart Abbey in Kirkcudbrightshire, a famous foundation of which there was practically nothing left except the remains of the fine church; and Inchmahome Priory, on an island in the lake of Perthshire. The ruins of the Bishop's Palace at Lamphey in Pembrokeshire might also be classed among the ecclesiastical remains. The Department made very important additions to the Roman remains for which they were responsible by taking over the well-known forts at Pevensey and Porchester. These two, with Richborough in Kent, of which the Department had been in charge for many years, contained the most impressive remains of the series of Roman forts on the Saxon shore. A noteworthy recent event was the purchase by the *Daily Mail* of the Roman amphitheatre at Caerleon. The Department had also taken over a few minor monuments such as standing and sculptured stones, and they also had in their charge historic buildings. For the past financial year the Department took a vote of £55,945 for the ancient monuments proper, but this year they were asking only £45,840. For the unoccupied historic buildings they were asking £15,135 as against £27,315 last year. They received in 1925 £6,678 in admission fees at ancient monuments proper, and at the occupied historic buildings £6,722, while the occupied historic buildings, including the Tower of London, brought in £14,883. The Department had scheduled 1,700 monuments, including a number of old and beautiful bridges which were no longer equal to the needs of modern traffic.

Waterloo Bridge.

Lord Crawford referred particularly to Waterloo Bridge, and said that he would sacrifice twenty mediæval bridges to preserve Waterloo Bridge, which was, perhaps, the greatest bridge erected in this or any country during the last three hundred years. It was certainly the greatest architectural and artistic monument that Britain possessed of the nineteenth century. And it was to be destroyed, perhaps next week! He urged Lord Peel to make an effort, even at this late juncture, to save one of the greatest ancient monuments in the country. The educational value of the work which was being done by the Office of Works was incalculable. Private owners, who did not dream of handing over their monuments to the Office of Works, saw examples in their own neighbourhood of the science of conservation, which was an entirely different thing from the vulgar and deleterious practice of restoration. "Restoration" was a word which should no longer be used except as a term of opprobrium as applied to ancient buildings. Here in this country, beginning with the inspiration of William Morris fifty years ago, a School of Architectural Conservation had grown up which was without its rival in the whole world. The Office of Works had on its staff architects who were fully alive to all the refinements of reparation, as opposed to conservation, and admirable work was being done, not merely in respect of monuments in Lord Peel's charge, but as exemplars to all others who had to repair their old buildings.

Lord Peel, in reply, said he thought it was a most deplorable misfortune that the magnificent Waterloo Bridge should be pulled down. He had not been at all inactive in his efforts to secure the preservation of the bridge, but the bridges of London above Blackfriars were in the hands of the London County Council, and it was extremely difficult, when one had a large elected body of that kind determined on a particular course, for the Government or anybody else to divert it from that course. He should very much regret the demolition of an ancient bridge like Waterloo Bridge.

Imported Bricks.

Sir P. Cunliffe-Lister informed Mr. Riley that the imports of bricks into the United Kingdom in 1913, 1924 and 1925 had been as follows:—

Year.	Quantity of Bricks of Brick earth or clay registered as imported.	Declared Value thereof. Total.	Per 1,000 bricks
	Thousands.	£	£ s. d.
1913 ..	2,814 ..	5,537..	1 19 4
1924 ..	85,042 ..	216,987..	2 11 0
1925 ..	159,035 ..	452,437..	2 16 11

Parham Old Hall.

Sir H. Slesser asked the Under-Secretary of State for the Home Department, as representing the First Commissioner of Works, whether he was aware that a fine niched and canopied stone gateway of the fifteenth century, Parham Old Hall, Suffolk, was about to be exported to America; and whether he would exercise any powers which he might possess to prevent the removal of this historic and ancient building.

Captain Hacking said that the First Commissioner was aware that the removal of the gateway was contemplated, but while he was most anxious to secure the retention of the monument, he did not feel that, compared with other monuments, it was of such outstanding importance as to warrant his issuing a Preservation Order.

Sir J. Gilmour informed Sir A. Sinclair that, under the Housing (Financial Provisions) Act, 1924, the number of houses completely built in Scottish rural areas, as defined by that Act, was 32. Six of those houses were completed in 1925, and the remaining 26 in 1926. The following statement showed, in Column I, the number of crofters' houses erected in the year 1920 and succeeding years with the aid of loans advanced by the Board under section 9 of the Small Landholders (Scotland) Act, 1911, and under sections 4 (1) (*e*) and 5 (4) of the Congested Districts (Scotland) Act, 1897, and in Column II the number of crofters' houses erected during these years on land schemes carried out throughout the country under the provisions of the Small Landholders (Scotland) Act, 1886–1919, and the Land Settlement (Scotland) Acts, 1919 and 1921:—

Year House was Completed.	*New Houses Completed.* I	II	*Total.*
1920	*Nil* ..	60	60
1921	22 ..	139	161
1922	49 ..	74	123
1923	124 ..	44	168
1924	57 ..	121	178
1925	38 ..	59	97

Imported Antiques.

During his Budget speech, Mr. Churchill said he had decided to exempt from import duty antiques and works of art more than 100 years old.

NEW BUILDINGS IN LONDON.

Barnet.—Extensive building sites, with frontages of 470 ft. to public roads, are shortly to be disposed of for development, including the erection of houses and shops. Messrs. Edwin Fox, Burnett & Co., surveyors, 9, Fenchurch-street, E.C.3.

Becontree.—It is proposed to build a new Memorial Chapel on the Becontree L.C.C. housing estate, as a memorial to the late Bishop Stevens, at an estimated cost of £16,000. Mr. Arthur Blomfield, F.R.I.B.A., architect, Grocers' Hall, Prince's-street, E.C.2.

Berkeley-street.—Nos. 3–5, Berkeley-street, W.1, have been acquired by Messrs. Dreyfous (Objets d'Art), of 128, Mount-street, W.1, and are to be reconstructed and opened as new showrooms.

Bermondsey.—A new factory, &c., at Keeton-road, S.E.1, is to be erected for Messrs. Peek, Frean & Co., Ltd., biscuit manufacturers. Messrs. John Greenwood, Ltd., builders, 12, Arthur-street, King William-street, E.C.4.

Bishopsgate, E.C.—The contract for the complete re-construction of the upper floors of 119-121, Bishopsgate, E.C. 2, has been placed with Messrs. Hall, Beddall & Co., Ltd., Pitfield Wharf, Waterloo Bridge, S.E. 1, under the instructions of Mr. T. H. Smith, architect, 17 & 18, Basinghall-street, E.C. 2. The upper floors have been arranged as suites of offices complete with accommodation for caretaker, and this work has necessitated the introduction of external iron fire escape staircases, which have been supplied by Messrs. Wilmer & Sons, Ltd.

Bruce-grove.—At the rear of a row of shops in High-road, opposite Bruce-grove Station, N., a group of 31 garages, with a large workshop, is to be provided. Mr. R. A. Smith, builder.

Bushey.—The Duke of Connaught is to lay the foundation stone on June 7 of the large new school at Bushey, for the Royal Masonic Institution for Boys, at Great Queen-street, Kingsway, W.C., which is estimated to cost £250,000 to build and equip. Messrs. Davies & Emanuel and Henry C. Smart, architects, 73a, Queen Victoria-street, E.C.4. Mr. Walter Lawrance, quantity surveyor, 13, Hart-street, W.C.1. Messrs. Albion T. Snell & Partners, consulting engineers, 5, Laurence Pountney Hill, E.C.4.

Charing-cross.—The large site at the corner of Charing Cross-road and Little Denmark-street, W.C., is to be sold for development, and large business premises will be erected. Messrs. Garrett, White & Poland, surveyors, 42, Poultry, E.C.2.

City.—A new building is being erected as an extension of Red Lion-market, in Whitecross-street, E.C.1. Mr. H. V. Clogg, builder, Vallance Works, Hanbury-street, E.1. Messrs. F. Bradford & Co., fireproof floors and reinforcement, 23, Coopersale-road, E.9. Messrs. British Luxfer Prism Syndicate, Ltd., pavement lights, 16, Hill-street, Finsbury, E.C.2.

City.—Large warehouse and factory premises are to be built upon the site of Nos. 34–36, Beech-street, E.C.1., for Messrs. Ingram, Perkins & Co., Ltd., timber merchants, 37, Beech-street, E.C.1. Messrs. John Marsland & Sons, Ltd., builders, 56, South Molton-street, W.1. Mr. Stanley Towse, F.R.I.B.A., architect, 9, Newcomen-street, S.E.1.

Covent-garden.—Demolition of old buildings on the site of Nos. 73–75, Endell-street, W.C., is now in progress prior to the erection of a large block of warehouse premises. Messrs. North, Robin & Wilsdon, architects, 35–39, Maddox-street, W.1. Messrs. Hillier, Parker, May & Rowden, surveyors, 27, Maddox-street, W.1.

Denmark-street.—A new building for use as offices is to be erected upon the site of No. 4, Denmark-street, Charing Cross-road, W.C. Messrs. Townsend (Builders), Ltd., builders, 24, Dean-street, W.1.

East Ham.—The committee of the Church Army's East Ham Social Centre have in contemplation the extension of their premises at a cost of £2,500.

Edgware-road.—Negotiations for a property in the Edgware-road district for adaptation as a wholesale distributing depot are being conducted by the Sovereign Confectionery Co., Lowton, Newton-le-Willows, Lancs.

Finchley.—An extensive building estate near Manor Parade is to be taken in hand shortly for intensive building development. Messrs. Ernest Owers, Ltd., surveyors, Golders-green, N.W.11.

Finsbury.—The L.C.C. have decided to make a grant of £7,500 towards the cost of £11,000 for the building of a new assembly hall at the Owen's Boys' School, and have approved the plans. Mr. Michael Waterhouse, F.R.I.B.A., architect, Staple Inn-buildings, Holborn, W.C.

Fleet-street.—New offices, &c., are to be erected in Fleet-street, E.C.4, for the proprietors of the *Glasgow Herald*, *Glasgow Evening News*, &c. Messrs. Bovis, Ltd., builders, 43, Upper Berkeley-street, W.1. Messrs. Archibald D. Dawnay & Sons, Ltd., steelwork, Battersea, S.W. Messrs. Caxton Floors, Ltd., fireproof flooring, Caxton House, Westminster, S.W.1. Messrs. Percy Tubbs, Son & Duncan, architects, 30, John-street, Bedford-row, W.C.1.

Finchley-road.—A large corner site on the Willow Lodge estate, on Finchley-road, N., has been secured for the erection of a large arcade of shops facing two frontages, with two stories of flats above. Messrs. D. Morris & Sons, Ltd., architects, Charing Cross, Westminster, S.W.1.

Glasshouse-street.—Plans have been prepared for the preliminary works, construction of underground vaults, &c., in connection with the commencement of rebuilding of the second section of the "Café Royal" premises in Glasshouse-street and Air-street, W.1. Messrs. Henry Tanner, architects, 3, Hanover-square, W.1.

Golders-green.—An arcade of 10 shops with flats above is to be built upon a site at Nos. 3–9, Hendon Park Vale, N.W. Mr. Leslie Raymond, F.S.I., surveyor, The Estate Offices, Golders-green, N.W.11.

Ham.—A town-planning scheme for the district of Ham, covering important building and road construction proposals, has been prepared. Professor Adshead, M.A., F.R.I.B.A. (Messrs. Adshead & Ramsey), 46, Great Russell-street, W.C., and Mr. E. T. Ogham, A.M.Inst.C.E. (surveyor to the Council), joint architects.

Hemel Hempstead.—Negotiations are proceeding for the disposal of the corner property, No. 5, High-street, with a total frontage of 220 feet, which it is proposed to convert into shops and showrooms. Messrs. Hillier, Parker, May & Rowden, surveyors, 27, Maddox-street, W.1.

High Holborn.—A building lease is to be granted of the site in High Holborn and Red Lion-street, W.C., with frontages of 81 ft. and 113 ft., and an area of 20,000 sq. ft. for the erection of shops and offices with commercial buildings at the rear. Messrs. Weatherall & Green, surveyors, 22, Chancery-lane, W.C.2.

Holborn.—Steelwork for the extension of the Gray's Inn-road branch of Messrs. Barclay's Bank, Ltd., is being supplied by Messrs. The London & Wales Steel Construction Co., 44, Bedford Row, W.C.1.

Kensington High-street.—The steelwork for the new branch premises at St. Leonard's-place, W.8, for Messrs. Midland Bank, Ltd., is to be supplied by Messrs. Moreland, Hayne & Co., Ltd., 80, Goswell-road, E.C.1. Messrs. Ford & Walton, Ltd., builders, 254, High-road, N.W.4. Messrs. Whinney, Son & Austen Hall, architects, 8, Old Jewry, E.C.2.

Kensington.—The contract for alterations and refitting at No. 73, Church-street, W., acquired by United Dairies Ltd., for a branch shop and depot has been secured by Messrs. J. H. St. John & Son, builders, 44, Seymour-place, W.1. Mr. T. Dear, architect.

Kilburn.—New showrooms, offices, etc., are to be erected for Messrs. The Gas Light & Coke Co., Ltd., Horseferry-road, Westminster, S.W.1, on a large site in Kilburn High-street, N.W. Messrs. Dove Bros., Ltd., builders, Cloudesley-place, Islington, N.1. Mr. H. Austen Hall, F.R.I.B.A., architect, 8, Old Jewry, E.C.2.

Kingston.—Bills of quantities for the new additions to the Kingston Grammar School have been prepared by Mr. Alan Paull, chartered surveyor, 12, New Court, Carey-street, Lincoln's Inn, W.C.2.

Lee Green.—A lease of a piece of building land at the junction of Bromley-road and Bromley-road By-pass-road has been secured by Messrs. Mann, Crossman & Paulin, Ltd., brewers, Whitechapel-road, E.1. Plans by company's architect.

North Finchley.—A new wing, caretaker's cottage, &c., are to be erected, and alterations made to existing buildings at the Christ's College, N.W., at a cost of about £40,000. Messrs. W. J. Maddison, Ltd., builders, 124, Minories, E.1. Mr. H. J. Crothall, F.R.I.B.A., architect, Guildhall, Westminster, S.W.1.

Orpington.—A new block of offices is to be built on a site near the Railway Station. Mr. F. Danby-Smith, F.R.I.B.A., architect, Parliament Mansions, Victoria-street, Westminster, S.W.1.

Oxford-street.—The contract for the rebuilding of 415, Oxford-street, W. 1, under the direction of Messrs. Wimperis, Simpson & Guthrie, architects, has been obtained by Messrs. Hall, Beddall & Co., Ltd., Pitfield Wharf, Waterloo Bridge, S.E. 1. The building owners are Messrs. Horne Bros., Ltd. The subcontractors are as follows: Steelwork, Messrs. A. D. Dawnay & Sons, Ltd.; Portland stonework, F. J. Barnes, Ltd.; patent floors, Messrs. Fram (London), Ltd.; asphalt, Messrs. Limmer & Trinidad Lake Asphalte Co.; steel casements and pavement lights, Messrs. Luxfer Co.; cast-iron fronts to upper floors, Messrs. W. Macfarlane & Co.; heating, Messrs. Rosser & Russell, Ltd.; lifts, Messrs. Waygood-Otis, Ltd.

Paddington.—The new public hall and library to be erected in Porchester-street, W.2, by the Paddington Borough Council is estimated to cost about £70,000. Mr. Herbert Shepherd, F.R.I.B.A., architect, 117, Queen's-road, W.2.

Poultry.—Erection of new headquarter offices in Poultry, St. Mildred's Court, and Princes-street, E.C.2, for the Midland Bank, Ltd. Additional contracts placed:—Central heating, Messrs. Comyn, Ching & Co., Ltd., 54, Castle-street, Long Acre, W.C.2; oil-burning apparatus, Messrs. Clyde Oil Fuel System, Ltd., 37, Walbrook, E.C.4. Messrs. Gotch & Saunders, Bank Chambers, Kettering, and Sir Edwin Lutyens, R.A., 17, Queen Anne's Gate, Westminster, S.W.1, architects.

Putney.—An extensive housing scheme is to be carried out at New-road, at Putney Grange, S.W., and plans for 120 residences of different types have been prepared. Mr. A. G. Greswell, builder, Croydon.

Regent-street.—At the annual meeting of the Goldsmiths & Silversmiths Company, Ltd., the chairman, Mr. A. T. Isaacs, stated that the company's showrooms and offices in Regent-street, W.1, were to be pulled down and re-built in two sections. Messrs. North, Robin & Wilsdon, architects, 35-39, Maddox-street, W.1.

Russell-street.—A large telephone exchange is to be erected on the north side of Russell-street, W.C., for H.M. Postmaster-General. Messrs. A. Roberts & Co., Ltd., builders, 74, Earl's Court-road, W.8. Messrs. Dorman, Long & Co., steelwork, 3, Central Buildings, Westminster, S.W.1. H.M. Office of Works, architects, Storey's Gate, Westminster, S.W.1.

Stepney.—It has been decided to raise funds for the building of a "Berliner" ward at the London Jewish Hospital at Stepney Green, E.1, in honour of Mr. L. Berliner, who has given £10,000 towards the completion of the hospital's front block of buildings. Messrs. Joseph, architects, 4, Paul's Bakehouse-court, E.C.4.

Shoreditch.—A contract for the building of the new Employment Exchange in Kingsland-

road, E., for the Ministry of Labour, has been secured by Messrs. Patman & Fotheringham, Ltd., builders, 15, Park-street, Islington, N.1. Messrs. Nelson Wise, excavation, Henshall-street, Islington, N.1. Messrs. Edward Wood & Co., Ltd., steelwork, Trafford Park, Manchester. Messrs. Siegwart Fireproof Floor Co., Ltd., patent floors, 231, Strand, W.C.2. H.M. Office of Works, architects, Storey's-gate, Westminster, S.W.1.

Streatham.—Plans have been sanctioned for the building of a group of 56 houses on an estate between New Park-road and Kirkstall-road, S.W. Messrs. Tysoe & Harrison, builders, 175, New Park-road, Streatham, S.W.2.

Tooting.—In connection with their new building scheme, the Governors of the Streatham Babies' Hospital, 39, Riggindale-road, S.W.16, have leased a site in Ramsdale-road, S.W., upon which it is proposed to build a new hospital of 35 beds.

Tottenham.—A new factory is to be erected in Vale-road, N, plans having been recently approved. Messrs. Scotia Knitting Co., Ltd., Edison-road, Crouch End, N.8.

Tottenham Court-road.—A company called the "Casino Theatre, Ltd.," has been registered at Somerset House with a capital of £200,000 to acquire the site at the corner of Tottenham Court-road and New Oxford-street, W.C.1, formerly occupied by Meux's Brewery, and to build a large theatre. Plans not yet definitely decided. Registered offices, 31, Lisle-street, Leicester-square, W.C.2.

Twickenham.—A residence is to be erected at the corner of Waldegrave and Strawberry Hill roads, Twickenham, for Mr. H. Gosling, C.M.G., M.P. Messrs. Culpin & Bowers, architects, 27A, Bush-lane, Cannon-street, E.C.4.

West End.—The new out-patients' and casualty department of the Royal National Orthopædic Hospital in Great Portland-street, W.1, is expected to be finished by May, 1927. Messrs. Holloway Bros. (London), Ltd., builders, Bridge Wharf, Grosvenor-road, Westminster, S.W. Mr. R. M. Piggott, F.R.I.B.A., architect, 44, Bedford Row, W.C.1.

HOW THE BUILDING TRADE WAS AFFECTED

We are officially informed that, so far as the building trade was concerned, the strike was largely ineffective. In some few centres work came to a standstill, but generally speaking any stoppage which occurred was only partial, and in many cases men who came out have already returned to work. The following information is derived from reliable sources:—

Cambridge: Stoppage. Norwich: No stoppage. Ipswich: Partial stoppage.

Bristol: Mostly out. Plymouth: Mostly out, but nearly all housing continuing. Gloucester: Only 5 per cent. out. Taunton: 85 per cent. working.

Bradford: Housing and other work stopped. Leeds: Housing work continuing. York: Partly out. Hull: Housing going on.

Cardiff: Few firms affected. Newport: Only five firms out of 30 affected. Rest of South Wales: Only partly affected.

Northern Counties: Housing and hospital work proceeding.

London: Stoppage fairly general; some housing work in progress.

Reading: Trade unionists out except on housing and a hospital job; country places in the neighbourhood are for the most part working normally. Brighton: 60 per cent. at work on general building. Southampton: 20 per cent at work. Eastbourne: About 60 per cent. at work on general building. Maidstone: All operatives at work.

North Western.—In Manchester and other industrial areas general building work has stopped, but housing work is proceeding. In North Wales, all building work is proceeding normally.

Midlands: In Birmingham all the building trade operatives have resumed. It is reported that in only 21 cases has a stoppage occurred.

RATES OF WAGES IN THE BUILDING TRADE

Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.

	Masons.	Brick-layers.	Carp'ters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Lab'rers
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bath	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bedford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bolton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bournemouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bradford	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Brighton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burton-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chatham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chelmsford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dudley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
E. Glam. (Mon. Vall.)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Eastbourne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Exeter	1/7	1/7	1/7	1/7	1/7	1/7	1/6	1/2½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Grays	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/3½
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Great Yarmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Guildford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hereford	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hull	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ipswich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lancaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Lichfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
London (12 m. radius)	1/9½	1/9½	1/9½	1/9½	1/9½	1/9½	1/8½	1/4½
London (12-15 m. radius)	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/4
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Maidstone	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Rochester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rugby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
St. Albans	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Helens	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stoke-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stroud	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5	1/1½
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swindon	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Taunton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Tunbridge Wells	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/3½
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/2½
Walsall	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/3½
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/1½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/3½
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/2½
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/3½
York	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½

(For rates of wages in the Building Trade in Scotland, see page 815.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

MAY 17.—**Adwick-le-Street.**—HOUSES.—Sixty houses at Crossfield-lane, Skellow, for the U.D.C. Frank Allen, Clerk. Deposit £2.

MAY 17.—**Blackpool.**—SCHOOL.—New junior council school in Lynwood-avenue, Layton, for the C.B. F. Wood, Borough Engineer and Surveyor. Deposit, £2 2s.

MAY 17.—**Cardiff.**—HOUSES.—Sixteen houses at Velindre-road, Whitchurch, for the R.D.C. Richards & McLean, architects, 5, Dumfries-place, Cardiff. Deposit £2.

MAY 17.—**Chelmsford.**—COTTAGES.—For (1) six cottages at Stock, (2) six cottages at Ingatestone, for the R.D.C. J. Dewhirst, engineer and surveyor, Council Offices, Waterloo-lane.

MAY 17.—**Doncaster.**—HOUSES.—On the Warmsworth-road (south) site and intake site, for the T.C. R. E. Ford, Housing Surveyor, 3, Priory-place. Deposit, £2 2s.

MAY 17.—**East and West Molesey.**—HOUSES.—Four houses at Walton-road, East Molesey, for the U.D.C. G. Condell, Clerk, St. Mary's-road, East Molesey.

MAY 17. — **Greenwich.** — HOUSES. — Erection and completion of 100 houses of A and B types on the Charlton Park site, for the Metropolitan Borough Council of Greenwich. Borough Engineer's Department, Town Hall, Greenwich, between the hours of 10 a.m. and 5 p.m. (but not between 1 and 2 p.m.); Saturdays, between 10 a.m. and 12 noon. Deposit £2 2s.

MAY 17.—**Ilkeston.**—EXTENSIONS.—Reinforced concrete water tower, for the T.C. L. G. Mouchell & Partners, Ltd., of Westminster, S.W.1. Deposit £1 1s.

MAY 17.—**Leeds.**—MEAT MARKET, &C.—"Whole of Trades" required in the extension of the Wholesale Meat Market, slaughter-house, lairage, &c., in New York-street for the Markets Committee of the Corporation. Braithwaite & Jackman, 6, South Parade, Leeds. Deposit, 2 guineas.

MAY 17. — **London.** — PAVING WORKS. — Paving the carriageways and footways of various streets, &c., for the Streets Committee of the Corporation of London. City Engineer, Guildhall, E.C.2.

MAY 17.—**Maldon.**—BUILDING.—Public convenience in Princes-street, for the T.C. Borough Engineer.

MAY 17.—**Newcastle-upon-Tyne.**—HOUSES.—Erection of 300 brick houses on the Fenham Nurseries estate, for the Housing Committee of the Corporation. Housing Architect, 18 Cloth Market, Newcastle. Deposit £3 3s., payable to the City Treasurer.

MAY 17.—**Newcastle-upon-Tyne.**—HOUSES.—Erection of 305 houses, Scheme No. 1 (Section B), 305 houses, Scheme No. 2 (Section C), for the Housing Committee of the Corporation. Housing Architects, 18, Cloth Market, Newcastle. Deposit £3 3s., payable to the City Treasurer.

MAY 17.—**Nottingham.**—ALTERATIONS.—Alterations and extensions to the administrative block, Bagthorpe Infirmary, Hucknall-road, for the B.G. Starr & Hall, architects, 12, Victoria-street. Deposit £2 2s.

MAY 17.—**Tendring.**—COTTAGES.—Six cottages in each of the following parishes:—Weeley, Thorrington, Little Clacton, Tendring, and Bradfield, for the R.D.C. F. G. Vincent-Brown, Cliff-road, Dovercourt Bay.

MAY 17.—**Thurnscoe.**—HOUSES.—76 houses, for the U.D.C. Carby Hall & Sons, architects, Prudential Buildings, Park-row, Leeds. Deposit £2.

MAY 17.—**West Mersea.**—TOWER.—Brick water tower, for the U.D.C. Sands & Walker, engineers, Milton Chambers, Nottingham. Deposit, £2 2s.

MAY 18.—**Bentley-with-Arksey.**—HEATING.—Installation of a low-pressure heating apparatus at Bentley-with-Arksey, Bentley-road new school, for the West Riding E.C. Education Department, County Hall, Wakefield.

MAY 18.—**Bishops Stortford.**—HOUSES.—Twenty-eight house, at Dunmow-road, for the U.D.C. R. S. Scott, engineer and surveyor. Deposit, £2 2s.

✱MAY 18. —**Edmonton.**—PAINTING.—(*a*) External painting of Edmonton House, Edmonton; (*b*) external painting of North Middlesex Hospital, Edmonton, for the Guardians of the Union. Guardians' Architect, J. C. S. Mummery, 34, Bloomsbury-square, W.C.1.

✱MAY 18.—**Epsom.**—ADDITIONS AND ALTERATIONS.—To the Clock Tower, High-street, Epsom, to form public conveniences. The construction is in brickwork to match existing tower. Office of the Surveyor to the Council, 33, Church-street. Deposit £2 2s.

MAY 18.—**Gisburn.**—ADDITIONS.—Alterations and additions to Gisburn Council School, for the West Riding E.C. Education Department, County Hall, Wakefield.

MAY 18.—**Horsham, Sussex.**—ADDITIONS AND ALTERATIONS.—Tenders (to be submitted to the Minister of Health for his approval) for additions and alterations to the Casual Wards at the Poor Law Institution, Horsham. F. Fraser Haddock, Clerk, Union Offices, 9, Carfax, Horsham. Deposit £2.

MAY 18.—**Ireland.**—BUILDING.—For (1) erection of a Garda Siochana Station at Leitrim, Co. Leitrim; (2) restoration of Innishannon ex-R.I.C. barrack, Co. Cork; (3) restoration of Skibbereen ex-R.I.C. barrack, Co. Cork; (4) restoration of Farranfore ex-R.I.C. barrack, Co. Kerry; (5) restoration of Bennetsbridge ex-R.I.C. barrack, Co. Kilkenny; and (6) restoration of Stradone ex-R.I.C. barrack, Co. Cavan, for the Commissioners of Public Works. J. J. Healy, secretary, Oifig Oibreach Puibli (Office of Public Works), Baile Atha Cliath (Dublin). Deposit £1 each.

MAY 18.—**Ireland.**—TRADES.—Painting and glazing works and supplies required, for the Commissioners of Public Works. J. J. Healy, secretary, Oifig Oibreach Puibli (Office of Public Works), Baile Atha Cliath (Dublin). Deposit £1.

MAY 18.—**Leeds.**—PAINTING.—Painting various bridges, for the T.C. W. T. Lancashire, city engineer.

MAY 18.—**Macclesfield.**—HOUSES. — Twenty-four houses on site known as Cross-lane, leading from Fishers-lane to Woodhouse-end, Gawsworth, for the R.D.C. G. Clayton, architect, 4, Wellington-street, Stockport.

MAY 18.—**Methil.**—INSTITUTE.—New institute, for the Miners' Welfare Fund, Fife, Clackmannan, Kinross, and Sutherland district. A. D. Haxton, Lic.R.I.B.A., 3, High-street, Leven.

MAY 18.—**Penistone.**—ADDITIONS.—To heating apparatus at Penistone Spring Vale Council School, for the West Riding E.C. Education Department, County Hall, Wakefield.

MAY 18.—**Rostrevor.**—PAINTING.—Cleaning and painting the exterior of Great Northern Hotel, for the Great Northern Railway Co. (Ireland). J. B. Stephens, secretary, Amiens-street Station. Deposit, £1 1s.

MAY 18.—**Selby.**—SCHOOL.—New school for 510 children at Selby, for the West Riding E.C. Education Department, County Hall, Wakefield.

MAY 18.—**Southampton.**—ALTERATIONS. — Alterations and additions at Woolston Public Library, for the C.B. Borough Engineer. Deposit £2 2s.

MAY 18.—**Thurnscoe.**—HOUSES.—Seventy-six houses, for the U.D.C. Carby Hall & Sons, architects, Prudential Buildings, Park-row, Leeds. Deposit £2.

MAY 18.—**Wealdstone.**—HOUSES.—Ninety-six parlour type houses on the Weald Village housing site, for the U.D.C. H. Walker, surveyor. Deposit £2 2s.

MAY 19.—**Dublin.**—REBUILDING.—Removing existing slating and re-slating about 1,007 squares of roofs at Portrane Mental Hospital, Donabate, co. Dublin, and taking down existing parapet wall of main dining hall, Portrane Mental Hospital, and re-building same, for the Joint Committee of Grangegorman Mental Hospital. S. J. McClure, Chief Engineer, Portrane Mental Hospital.

✱MAY 19. — **Fulham.** — CLEANING, PAINTING, AND REPAIRS.—At Western Fever Hospital, Seagrave-road, Fulham, S.W. 6, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit, £1.

✱MAY 19. — **Hackney.** — PAINTING AND REDECORATING.—Painting the exterior woodwork and ironwork and painting and re-decorating the interior of 32 maisonettes, situate in Daubeney-road and Adley-street, E., for the Hackney Borough Council. Norman Scorgie, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Hackney, E. Deposit, 1 guinea.

✱MAY 19. — **Herts.** — FENCING. — Supply and delivery of corrugated steel pale fencing to Leavesden Mental Hospital, Abbots Langley, Herts., for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, S.E. 4. Deposit, £1.

MAY 19.—**Kingwell.**—HOUSE.—Bungalow on main Clutton-Timsbury road, at Kingwell. W. Scobell, Clutton, near Bristol. Deposit £2 2s.

✱MAY 19.—**London.**—CLEANING, PAINTING, AND ALTERATIONS.—(1) Cleaning and painting at several institutions, for the M.A.B. (2) alterations to entrance, South-Eastern Ambulance Station, New Cross-road, S.E. Mr. T. Cooper, Engineer-in-chief, Offices of the Board, Victoria Embankment, E.C. 4. Deposit, £1 for each work.

MAY 19.—**London.**—HEATING.—(1) Installation of forced circulation heating and hot-water service apparatus at the Eastern Fever Hospital, The Grove, Homerton, E.9, and (2) installation of forced circulation heating and hot-water apparatus as an extension to the existing apparatus at the Downs Hospital for Children, Banstead-road, Sutton, for the M.A.B. T. Cooper, Engineer-in-Chief, Office of the Board, Victoria-embankment, E.C.4. Deposit £1 each.

✱MAY 19. — **London and Dartford.** — REPAIRING, &C.—(1) Repairing and tarring paving at Fountain Mental Hospital, Tooting Graveney, S.W. (2) Laying new York stone paving to kitchen, Southern Hospital, Dartford, Kent, for the M.A.B. T. Cooper, Engineer-in-chief, Offices of the Board, Victoria-embankment, E.C. 4. Deposit, £1 for each work.

MAY 19.—**Skegby.**—HOUSES.—Thirty-four houses (parlour and non-parlour types), for the R.D.C. L. Dodsley, architect, Portland-square, Sutton-in-Ashfield. Deposit £5.

MAY 19.—**Stockton-on-Tees.**—TELEPHONE EXCHANGE.—Erection of, at Stockton-on-Tees, for the Commissioners of His Majesty's Office of Works, Contracts Branch, King Charles-street, London, S.W.1. Deposit 1 guinea (cheques payable to the Commissioners).

MAY 20.—**Belfast.**—BUILDING.—Lecture block at the Training College, Strathmillis, Belfast, for the Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-square West, Belfast. Deposit £5.

MAY 20.—**Kingston-upon-Hull.**—FOUNDATIONS.—Turbo-alternator reinforced concrete foundations, for the T.C. H. Bell, City Electrical Engineer and Manager. Deposit, £1 1s.

MAY 20.—**Kirkcaldy.**—SCHOOL.—New technical school, for the Fife E.C. W. Alison, A.R.I.B.A., Kirk Wynd, Kirkcaldy. Deposit £2 2s.

MAY 20.—**Liverpool.**—TELEPHONE EXCHANGE.—Erection of, at Garston, Liverpool, for the Commissioners of His Majesty's Office of Works, Contracts Branch, King Charles-street, London, S.W.1. Deposit 1 guinea (cheques payable to the Commissioners).

MAY 20.—**London.**—PAINTING.—Cleaning and repainting bridges, station buildings, &c., at the following places:—Loughor, St. Clears, &c.; Whitland, Tenby, &c.; Manorbier, Pembroke, &c.; Clynderwen, Neyland, &c.; Carno, Talerddig, &c.; Barmouth, Harlech, &c., for the G.W.R. F. R. E. Davis, Secretary, Paddington Station, W.2.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons', Bricklayers', Plasterers'.
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/7	10½d. to 1/1
Airdrie	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3
Alexandria	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2½ to 1/3½
Arbroath	1/7	1/7	1/7	1/7½	1/7	1/7	1/5½	1/1½
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3
Bathgate	1/8	1/8	1/8	1/8½	1/8	1/8	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Coatbridge	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3 to 1/3½
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dumfries	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Dunfermline	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Greenock	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/0½ to 1/3½
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½
Inverness	1/5	—	1/5	1/4	1/5	1/5	1/4	1/- to 1/2
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkcaldy	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/8	1/8	1/8	1/9	1/8	1/8	1/6	1/0 to 1/3
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Motherwell	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3
Stirling	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Stirlingshire (Eastern District)	1/8-1/10	1/8 1)10	1/8	1/9	1/7	1/8	1/6½	1/3½
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 814.

MAY 20.—**Nottingham.**—BUILDING.—Extension to the North Wilford power station, for the T.C. T. Wallis Gordon, City Engineer and Surveyor. Deposit £2 2s.

MAY 20.—**St. Helens.**—HOUSES.—Eighty houses of brick, as follows:—Site No. 4, Broad Oak-road, 14 houses; site No. A, Allanson-street, 36 houses; site No. F, Gower-street, 30 houses, for the C.B. A. W. Bradley, Borough and Water Engineer. Deposit £2.

✱MAY 21.—**Maldon, Essex.**—HOUSES.—Erecting 16 houses in Fambridge-road in blocks of eight, for Borough Council. Borough Surveyor, Council Offices, Maldon. Deposit £1 1s.

MAY 21.—**Neath.**—HOUSES.—Fifty-eight houses on the Crythan Park site, for the T.C. H. Alex. Clarks, Borough Engineer. Deposit, £3 3s.

MAY 22.—**Chester.**—SCHOOL.—Erection and completion of new elementary school at Elton, for the E.C. of the Cheshire C.C. F. Anstead Browne, F.R.I.B.A., County Architect, Newgate-street, Chester. Deposit £2 2s.

MAY 22.—**Elton.**—SCHOOL.—New elementary school at Elton, for the Chester County E.C. F. Anstead Browne, F.R.I.B.A., County Architect, Newgate-street, Chester. Deposit £2 2s.

MAY 22.—**Preston.**—SCHOOL.—Central school at Deepdale-road, for the C.B. B. Widdows, architect. Deposit, £4 4s.

✱MAY 24.—**Ilford.**—HOSPITAL BUILDINGS.—War Memorial Entrance Hall and Children's Hospital ward block of 22 beds, to be used in conjunction with existing Emergency Hospital, Ilford, for the Management Committee of the Ilford War Memorial Fund. Messrs. C. J. Dawson, Son & Allardyce, architects, Clock House Chambers, Barking. Deposit, £5 5s.

MAY 24.—**Northwich.**—HOUSES.—Fifty-four houses on the Winnington housing site, for the U.D.C. J. Brooke, engineer and surveyor. Deposit, £3 3s.

MAY 24.—**Stevenage.**—HOUSES.—Sixteen houses in Walkern-road, for the U.D.C. R. A. Gandy, engineer and surveyor. Deposit £2 2s.

MAY 25.—**Panteg.**—HOUSES.—Twenty houses and the construction of certain road works in connection therewith at Blaendare-road, Pontymoel, near Pontypool, for the U.D.C. Surveyor.

MAY 25.—**Truro.**—HOUSES.—On the Tresillian site, St. Erme, four; Higher-lane, Merther, four; Cuby, two; Coombe site, Kea, two; Ruanlanihorne, four; Gerrans, four, for the R.D.C. H. L. Butler, architect, 39, Edward-street. Deposit, £1 1s.

✱MAY 26.—**Cowley (Oxford).**—TELEPHONE EXCHANGE.—To be erected for the Commissioners of H.M. Office of Works. Drawings, specification, &c., at Oxford Head Post Office. Quantities and forms of tender from Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit, £1 1s.

MAY 28.—**Blackpool.**—HOUSES.—108 houses in pairs and terraces, including fences, paths and house drainage, on the Hoo Hill, Layton estate, for the C.B. E. D. Dennis, L.R.I.B.A., 27, Clifton-street. Deposit £3 3s.

MAY 29.—**Enfield.**—COTTAGES AND GARAGE.—Erection of six cottages and a motor ambulance garage at the Isolation Hospital, World's End, Winchmore Hill, N., by order of the Board to the Hospital. Mr. H. R. Crabb, M.Inst.C.E., Public Offices, Enfield, Middlesex.

MAY 29.—**Horden.**—WALL.—Build a wall, 9 ft. high, around the premises of the Horden Workmen's Social Club, Ltd. Secretary.

MAY 31.—**Salford.**—ALTERATIONS.—At the old laundry at Union Infirmary, Hope, Pendleton, for the B.G. W. Telford Gunson & Son, architects, 10, Marsden-street, Manchester. Deposit, £2 2s.

JUNE 1.—**Heywood.**—HOUSES.—Twenty-eight houses in Orchard-street, Woodland-road, and Barley Hall-street, for the T.C. J. B. Nuttall, Borough Surveyor. Deposit, £1 1s.

JUNE 5.—**Ormskirk.**—REPAIRS.—Building of new brickwork seatings for boiler, at the Infirmary, Wigan-road, for the B.G. A. Dickinson, Clerk, 2, Railway-road.

JUNE 24.—**Holyhead.**—TEMPORARY PAVILION.—Erection of, for the Royal Welsh National Eisteddfod, 1927, at Holyhead. T. O. Thomas, L.R.I.B.A., architect, Central Chambers, Holyhead. Can be loaned on application.

NO DATE.—**Gosport.**—ALTERATIONS.—To Timothy White Co.'s premises, 11, North Cross-street. Timothy White Co., Ltd. (Construction Department), 30 Chandos-street, Portsmouth.

NO DATE.—**King's Lynn.**—HOUSES.—Pair of residences on the Gaywood-road. L. F. Eagleton, architect and surveyor, 38, King-street.

✱NO DATE.—**London.**—GAS MAINS.—Supply and fixing of gas mains, services, fittings, &c., at Downham Central School, Lewisham, S.E., for the L.C.C. Architect to the Council, the County Hall (Room No. 3), Westminster Bridge, S.E. 1.

NO DATE.—**Long Ashton.**—LIGHTING.—Installation of electric light at the institution, Flax Bourton, for the B.G. A. E. Hicks, Clerk to the Guardians, Flax Bourton.

✱NO DATE.—**Near Brighton.**—CLEANING AND PAINTING.—Interior cleaning and painting of Portslade School, near Brighton, for the L.C.C. Architect to the Council, the County Hall, Westminster Bridge London, S.E. 1.

NO DATE.—**Newcastle.**—BUILDING.—Branch premises, Shields-road, for Walker Co-operative Society, Ltd. C. W. S. Architect's Department, 90, Westmorland-road, Newcastle.

NO DATE.—**New Hartley.**—HALL.—Roman Catholic parochial hall, at New Hartley. Joseph Potts & Son, architects, 57, John-street, Sunderland.

NO DATE.—**Whitwood.**—HOUSES.—Forty houses at Three-lane Ends, Methley-road, Whitwood Mere, for the U.D.C. R. A. Easdale & Son, architects and surveyors.

MATERIALS, etc.

MAY 17.—**Ilkeston.**—PIPES.—270 tons of 12 in. and 40 tons of 8 in. cast-iron pipes, for the T.C. Water Engineer. Deposit £1 1s.

MAY 17.—**Tendring.**—STONE.—Supplies of stone, for the R.D.C. Highways Surveyor, Great Bentley, Essex.

MAY 29.—**Rainham.**—PIPES.—2,530 tons of cast-iron pipes and specials, for the Rochester and Chatham Joint Sewerage Board. W. H. Radford & Son, Chartered Civil Engineers, Albion Chambers, King-street, Nottingham. Deposit £3 3s.

✱NO DATE.—**Aldershot.**—MATERIALS.—Required for the construction of 50 houses by direct labour. James Neave, Borough Surveyor, Municipal Buildings, Aldershot.

ENGINEERING, IRON AND STEEL.

MAY 17.—**Uttoxeter.**—BRIDGE.—Reinforced concrete works for the construction of a new bridge, retaining walls, &c., at Mill Bridge, over the River Blithe, for the R.D.C. T. R. Parry, surveyor. Deposit £1 1s.

MAY 19.—**Aberbeeg.**—BRIDGE.—Reconstruction of a bridge, road improvements, and other works at Aberbeeg, Mon, for the G.W.R. F. R. E. Davis, Secretary, Paddington Station, W.2. Deposit £2 2s.

MAY 19.—**Skegby.**—CULVERT.—Reinforced concrete culvert over the Sokeholme ford, and for the works of road improvement appurtenant thereto, for the R.D.C. L. Dodsley, surveyor, Portland-square, Sutton-in-Ashfield.

MAY 20.—**Kingston-upon-Hull.**—STEELWORK.—Steel work sub-structure for Sculcoates sub-station, for the T.C. H. Bell, City Electrical Engineer and Manager. Deposit, £1 1s.

MAY 20.—**Nottingham.**—STEELWORK.—420 tons of steelwork in stanchions, girders, beams, roof trusses, &c., and 2 tons of cast iron in gutters, standards, &c., for the extensions to North Wilford power station, for the T.C. T. Wallis Gordon, City Engineer and Surveyor. Deposit £2.

MAY 21.—**Marsden.**—EXTENSION.—Alteration and extension of the existing sewage works at Wood Bottom, Marsden, comprising the construction of settling and storm water tanks, sludge pump house, pump well, sludge drainers and drying area, discharge and dosing chambers, retaining wall, four No. 54 ft. diameter percolating beds, humus tanks and drainers, effluent outlets, roadway, footpaths, cast-iron and fireclay drains, &c., for the U.D.C. C. H. Marriott, Son & Shaw, engineers, Church-street Chambers, Dewsbury. Deposit £3 3s.

ROAD, SEWERAGE, AND WATER WORKS.

MAY 17.—**Menston.**—REPAIRS.—For (*a*) surface dressing of the main drive with Spramex; (*b*) tar painting, repairing, and surfacing of asphalt paths and courts in the West Riding Mental Hospital, Menston, near Leeds, for the West Riding C.C. W. E. H. Burton, architect and engineer, West Riding Mental Hospitals Board Offices, Wakefield.

MAY 18.—**Belfast.**—PROCESSIONAL ROAD AND TERRACE BANKS.—To be erected for the North of Ireland Government Buildings, Stormont Castle, Belfast, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

MAY 18.—**Failsworth.**—MAKING-UP.—Sewering, levelling, paving, metalling, flagging, kerbing, channelling, and making-up of Co-operation-street, together with certain adjacent passages, for the U.D.C. J. W. E. Brown, engineer and surveyor.

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MAY 18.—**London.**—PAVING.—Wood paving the carriageway of St. Donatt's-road from Lewisham High-road to Shardeloes-road with best creosoted yellow deal blocks on prepared foundations, for the Deptford B.C. H. Morley Lawson, Borough Surveyor.

MAY 18.—**Wealdstone, Middlesex.**—ROADS.—Execution of the necessary works in connection with the making-up and providing proper means for lighting Woodlands-road and portions of Grant and Lorne-roads, for the U.D.C. Herbert Walker, C.E., surveyor, Council offices, Wealdstone. Deposit, £1.

MAY 19.—**Tonbridge.**—IMPROVEMENTS.—To Three Elm Lane-road, Hadlow, for the R.D.C. F. Harris, 130, High-street.

MAY 22.—**Heysham.**—SEWERS.—Construction of main intercepting and branch sewers, pumping station and rising main, storage tank, and sea outfall, together with other incidental work, for the U.D.C. Wilcox & Raikes, engineers, 63, Temple-row, Birmingham. Deposit £5 5s.

MAY 24.—**Maldens and Coombe.**—MAKING-UP.—For (1) making up carriageways and maintaining Albert-road, George-road (part), and Queens-road (part), New Malden; (2) paving the footways (part) with artificial stone slabs, for the U.D.C. R. H. Jeffes, Council Offices, New Malden. Deposit £3 3s.

MAY 25.—**Cheshunt.**—ROADS.—For 60 houses on the Paul's Nursery site, Waltham Cross, for the U.D.C. J. E. Sharpe, engineer and surveyor. Deposit £2 2s.

MAY 25.—**Newton Abbot.**—SEWERS.—Construction of about 1,780 lineal yds. of 12 in., 9 in., 7 in., and 6 in. diameter stoneware pipe sewers, together with manholes, detritus, settlings and storm tanks, percolating filters, humus tanks, and other incidental works, for the R.D.C. F. W. S. Stanton, the consulting engineer. Deposit, £3 3s.

MAY 26.—**Scarborough.**—PIPE-LAYING.—Laying of about 4 miles of 15 in. and 13 in. cast iron pipes and specials and short lengths of smaller pipes, together with valves, hydrants, meters, &c., for the new Irton water scheme, for the T.C. Dr. H. Lapworth, engineer, 25, Victoria-street, Westminster. Deposit £3.

MAY 29.—**Rainham.**—SEWER.—Construction of the main outfall sewer, consisting of laying about 3,194 yds. of 36 in., 33 in., and 32 in. cast iron pipes in double pipe line; and the construction of about 241 yards of concrete sewer culvert, size 5 ft. 3 in. high by 3 ft. 6 in. wide, together with appurtenant works; also for the construction of new sewage disposal works, comprising grit tanks, screens, sewage carriers, storm tanks, settling tanks, sludge drying beds, power house, pump house, offices, and all appurtenant works, at Motney Hill, near Rainham, Kent also for laying about 924 yds. lin. of 24 in., 36 in. and 24 in. cast iron pipes on the site, and 494 yds. lin. of 36 in. and 42 in. cast iron tidal outfall pipes on wood piling, for the Rochester and Chatham Joint Sewerage Board. W. H. Radford & Son, Chartered Civil Engineers, Albion Chambers, King-street, Nottingham. Deposit £10 10s.

Competitions.

(*See Competition News page* 782.)

Auction Sales, Tenders, etc.

MAY 18.—**Isle of Wight.**—Freehold property, at Yarmouth, I.O.W., known as "Roffard House," freehold residence; also building estate of nearly 14 acres, with vacant possession. Auctioneers, 20, St. James's-square, S.W.1.

MAY 18.—**Kent.**—Freehold property, at Bromley, known as "Church House," with vacant possession.

MAY 18.—**London.**—W. W. Howard Bros. & Co., in conjunction with Joseph Hibbard & Sons, will sell stock of Burma hardwoods, by order of the Government of Burma, at the Small Hall, Winchester House, Old Broad-street, E.C.2. Auctioneers, Joseph Hibbard & Sons, 15, Newington Green, Islington, N. 16.

MAY 19.—**London.**—Daniel Smith, Oakley & Garrard, in conjunction with Greaves & Son, 117, North-street, Brighton, will offer, by order of the Brighton Corporation, the following properties for letting, by auction, at the London Auction Mart, 155, Queen Victoria-street, E.C.4: Brighton, building site, now occupied and known as Nos. 150–156, Western-road, about 10,500 sq. ft.; also, by order of the Westminster City Council, building site formerly occupied by the properties, 54, 56, 58, Wardour-street, 11, Little Dean-street, containing about 2,760 square feet, to be let on building lease for 99 years. Auctioneers, 4–5, Charles-street, St. James's-square, S.W.1.

MAY 20.—**Bexhill-on-Sea.**—Humbert & Flint, in conjunction with Stevens & Sons, will sell, in numerous lots, at the Highwood Golf Club House, freehold building land of about 30 acres, 5,000 ft. frontage to public roads. Auctioneers, Stevens & Sons, 1, Sea-road, Bexhill-on-Sea; Humbert & Flint, 11, Serle-street, Lincoln's Inn Fields, W.C.2, and Watford, Herts.

JUNE 1.—**London.**—Hampton & Sons will sell, at the St. James' estate rooms, 20, St. James'-square, S.W.1 (unless previously sold), freehold residence, "Springfield Lodge"; also, over 3 acres of building land, with vacant possession. Auctioneers, 20, St. James'-square, S.W.1.

JUNE 8.—**Middlesex.**—Freehold building land at Pinner, of over 2¼ acres, with vacant possession.

JUNE 10.—**London.**—Daniel Watney & Sons will sell, at the London Auction Mart, 155, Queen Victoria-street, E.C.4, freeholds comprising 63, 65 and 65a, Oxford-street, 10, 10a and 11, Soho-square, and Nos. 11, 12 and 13, Soho-street, together constituting a building site with an area of about 10,200 super. ft., on the south side of Oxford-street between Tottenham Court-road and Oxford Circus; possession of the main block at Midsummer, 1927. Auctioneers, 4a, Frederick's-place, Old Jewry, E.C.2.

Public Appointments.

✱MAY 18.—**Reigate.**—BUILDING AND SEWERAGE INSPECTOR for the Borough Surveyor's Department. Borough Surveyor, Municipal Buildings, Reigate.

✱MAY 19.—**Bradford.**—Lecturer in the Department of Civil Engineering, Architecture and Building required or the Technical College by the Bradford Education Committee. Director of Education, Town Hall, Bradford.

✱MAY 24.—**Essex.**—ARCHITECTURAL ASSISTANT.—Fully qualified architectural assistant required in the Architect's Department on the temporary staff by the Essex County Council. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford.

✱MAY 24.—**Hitchin.**—CLERK OF WORKS.—Competent clerk of works required by the U.D.C. for a housing scheme of 200 houses, including roads and sewers. A. T. Blood, Surveyor, Town Hall, Hitchin.

✱MAY 26.—**Sheffield.**—QUANTITY SURVEYOR AND ARCHITECTURAL ASSISTANT.—(*a*) Quantity surveyor, fully qualified with general experience; (*b*) architectural assistant, experienced in preparation of working drawings and details for schools and other public buildings required by the City Council. W. G. Davies, A.R.I.B.A., City Architect, Town Hall, Sheffield.

✱MAY 31.—**Dartford.**—HOUSING SUPERINTENDENT required by the R.D.C. for erection of houses by direct labour. Eustace J. Hobbs, Clerk, West-hill Dartford.

✱NO DATE.—**Uganda.**—WATERWORKS SUPERINTENDENT.—Required by the Government of Uganda for the Jinja Water Supply scheme, for a tour of 20-30 months. Apply at once, Crown Agents for the Colonies, 4, Millbank, Westminster, London, S.W.1, quoting M/14553.

✱NO DATE.—**West Riding.**—CLERK OF WORKS required to undertake duties in connection with the County Council Schools. Education Department, County Hall, Wakefield.

PROPOSED NEW BUILDINGS & OTHER WORKS*.

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B.E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board.

APPLEBY.—The M.H. has sanctioned the T.C. to borrow £3,000 for housing purposes.—Improvements are recommended to the town hall, at a cost of £260.

BARROW.—The Electricity Commissioners have held an inquiry into the application of the Barrow Corporation to borrow £90,000 for the construction of a hydro-electric generating station near the foot of Windermere Lake.

BIGGLESWADE.—The Surveyor to the U.D.C. has submitted lay-out and other plans and estimates for 90 houses at Townfield, and has been instructed to submit the plans to the M.H. for approval, and thereafter to prepare specification, and advertise for tenders.

BOLTON.—The T.C. passed plans: Leigh Bros., Ltd., 12 houses, Sutherland-road, 12 houses, Tenby-avenue, and two houses, Kingston-avenue; T. Blakley, 10 houses, Paton-avenue, and 12 houses, Westbourne-avenue; E. Howarth, 14 houses, Lever Edge-lane; Howarth & Kilburn, 12 houses off Empire-road; Rev. R. N. Tripp, Parochial Hall, Markland Hill; Yates & Partington, 10 houses, Bennetts-lane and Adrian-road.

BOURNEMOUTH.—The T.C. recommend that application be made to the M.H. for sanction to borrow £136,595 for the erection of the superstructure of the pavilion.

BRIGHTON.—The C.B. passed various plans, including eighteen houses in Roedale-road, for C. Blaker, and twenty-eight in Evelyn-terrace, for the Southern Railway Co.

BROMLEY.—The E.C. has prepared plans of the proposed new "Burnt Ash School," on the L.C.C. Downham estate. Application is to be made for a loan amounting to £40,798 for the work.

CHAPEL-EN-LE-FRITH.—The R.D.C. has decided to make application to the M.H. for sanction to borrow £5,315 for the erection of nine houses at Jenny-lane, Bugsworth.

CHELMSFORD.—The R.D.C. recommended application to the M.H. for sanction to the erection of 20 houses.

DEWSBURY.—The E.C. has received permission from the B.E. to proceed with the first part of a scheme of extending the Technical College, at an estimated cost of £2,160.

EAST YORKSHIRE.—The East Riding C.C. has instructed the County Surveyor to construct a concrete retaining wall and erect guard fencing on the Hull-Cottingham road, at an estimated cost of £1,404.

ECCLES.—Tenders have been submitted for the erection of a sub-station in the Victoria Gardens, and the T.C. has resolved that the tender of the Works Department be accepted at a sum of £109 2s.

FRIERN BARNET.—The M.H. has held a public inquiry into the application of the U.D.C. to borrow £6,000 for the erection of a fire station and depot with flats for firemen.

GILLINGHAM.—The T.C. passed plans: E. J. Hammond, for F. Parham, six houses and five garages, Cleave and Seaton-roads; Greenhalgh & Charlson, eight houses, First-avenue.

GREENFORD.—The G.W.R. has authorised the provision of a new passenger halt near Greenford.

HUDDERSFIELD.—The M.H. has sanctioned £18,603 for the erection of 145 houses at Hudroyd, Almondbury.

HULL.—The T.C. passed plans: G. H. Needler, 22 parlour type houses, Brindley-street; E. Mowforth, nine parlour type houses, Ormonde-avenue; J. E. Wray, 32 non-parlour type houses, Lee-street; Backwell & Foster, 45 non-parlour type houses, Rensburg-street, 13 non-parlour type houses, Severn-street, and nine non-parlour type houses, Brecon-street; C. H. Smith, eight parlour type houses, Savery-street; R. W. Trigg, four parlour type houses, Aisne-street, and 20 parlour type houses, Somme-street; G. T. Spruit, 30 parlour type houses, Lake View estate, Holderness-road.

ILFORD.—The U.D.C. passed plans: Haines & Warwick, nine houses, 1–17, Vicarage-lane; A. P. Griggs, vicarage, St. Andrew's Church, The Drive; P. E. Brand, 24 houses, 1–24, Clifford-gardens, Jerrold-avenue; P. E. Brand, 24 houses, 1–7 and 2–8, Winder mere-gardens, 1–7 and 2–8, Ellesmere-gardens, 23–30, Southdene-gardens, Eastern-avenue; W. Butcher, 11 houses; J. W. Lohden, 46 houses, 338–428, Ley-street.

KIDDERMINSTER.—The T.C. passed plans: Ten houses, Aggborough-crescent, for A. E. T. Hassall; and six houses, Cherry Orchard, for J. Harvey.

KNARESBOROUGH.—The M.H. has approved the proposals of the U.D.C. to proceed with the erection of 20 additional houses.

KNEBWORTH.—The Hitchin R.D.C. are to erect 25 cottages, on a site now being selected by a specially appointed committee.

LEEDS.—The T.C. passed plans: G. Monkman, 17 houses, Coldwell-road; H. Lax, Ltd., 14 semi-detached and three detached houses, Roxholme-avenue and place, Harehills; C. H. & F. Lax, 20 semi-detached houses, Easterly-crescent and Uplands-road, Harehills; F. B. Lax, 20 semi-detached houses, Scott Hall-road estate, Chapel Allerton; East End Park Estate Co., 16 semi-detached houses, estate off East Park-parade, East End Park; J. A. Bonner, 12 semi-detached houses, Scott Hall-road and Stainbeck-lane, Chapel Allerton; C. H. & F. Lax, 14 semi-detached houses, Easterly-grove, Harehills.

LONDON (BATTERSEA).—The B.C. recommend the scheme for removing the pillars in the Lower Hall, and increasing the lavatory accommodation in the Lower Hall. The Borough Surveyor has been instructed to submit detailed plans and estimates of the cost of carrying out such works.—Plans have been passed for Young & Hall, architects, for structural alterations at Bolingbroke Hospital, Bolingbroke-grove.

LONDON (DOWNHAM).—The L.C.C. recommend £2,000 in respect of the erection at Downham of a further block of four houses on the "Prefacto" system of construction.

LONDON (EALING).—Although detailed plans have not yet been decided upon for the proposed building of a mission hall for St. John's Church, a cost of not less than £2,000 is estimated.

LONDON (PADDINGTON).—The B.C. recommend the scheme for carrying out improvements at the Council's depot Nos. 11, 12 and 13 Wharves, North-side, Paddington Basin, at an estimated cost of £3,210.—The Council also recommend that in connection with the erection of a public hall, shops and lending library on "The Lodge" site, application be made to the L.C.C. for sanction to borrow the sum of £99,417.

LONDON (SHOOTER'S HILL).—The M.W.B. recommend that £850 be approved for work in connection with the Shooters Hill reservoir.

LONDON (STEPNEY).—The B.C. recommend that application be made to the L.C.C. for sanction to borrow £13,000 for the acquisition of Skaife's site, Brunton-place, and Commercial-road East, for the housing purposes, and also for sanction to borrow £16,000 for the acquisition of the Milk-yard site, and for the same and conversion of the former Seamen's lodging house, St. Anne-street, for which £6,300 is required. The Council also recommend repairs, &c., at Raphael House by the Borough Surveyor, at £300.

MAIDSTONE.—The T.C. has passed plans: London-road and Poplar-grove, twenty-two houses, for Cox Bros.; and St. Philip's-avenue, six houses, for C. A. Walter.

MANSFIELD.—The T.C. has received sanction to the borrowing of £44,000, being the first instalment of expenses incurred in connection with Clerkson's-alley scheme, which will clear away condemned property existing between Westgate and Clumber-street.

PENARTH.—The Council has decided to make application to the M.H. for sanction to a loan of £27,000 for the erection of fifty houses.

RAWMARSH.—The U.D.C. has received the M.H. sanction to the erection of 41 additional parlour houses on the Haugh-road site.

ROTHERHAM.—The Housing Committee of the B.C. propose applications to the M.H. to sanction loans of £63,700 for the erection of 170 houses in Canklow-road, and £24,690 for the erection of 66 houses in Hartington-road.

SHEFFIELD.—The T.C. has received the formal sanctions of the M.H. to the borrowing of £179,680 for street and sewer works, Manor estate; £183,964 for erection of houses on the Manor estate; and for houses, street works, &c., at Gleadless Common.

SOUTHEND.—Towards the £100,000 needed for Southend's new hospital, £40,000 has been raised.

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[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

Flettons, at	£ s. d.		£ s. d.
King's Cross	2 13 3	Best Blue Pressed Staffs	9 5 0
Do. grooved for Plaster	2 15 3	Do. Bullnose	9 15 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire Brick :—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	21 10 0	D'ble Str'tch'rs	30 0 0
		D'ble Headers	27 0 0
		One Side and two ends	31 0 0
Headers	21 0 0	Two Sides and one End	32 0 0
Quoins, Bullnose and 4½in. Flats	28 0 0	Splays and Squints	29 10 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. „ „	2 4	4 in. „ „	3 6

	s. d.	
Thames Ballast	10 6	per yd.
Pit Sand	13 9	„ „
Thames Sand	14 6	„ „
Best Washed Sand	14 6	„ „
½ in. Shingle for Ferro-Concrete	12 9	„ „
¼ in. „ „	14 0	„ „
¼ in. Broken Brick	11 6	„ „
Pan Breeze	7 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test £2 18 0 to £3 3 6

51s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 10 0
Super Cement (Waterproof)	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dp.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube.... 2 9½

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube..... 2 11½

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube..... 4 4

Do. do delivered on road wagons at above stations, per ft. cube..... 4 5

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE—

	s. d.
Delivered at any Goods Station, London.	
Random blocks from 10 ft. and over P. ft. cb.	17 0
Sawn two sides „	27 0
Sawn three or four sides „	32 0

YORK STONE, BLUE—*Robin Hood Quality.*

	s. d.
Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per ft. super	5 6
6 in. rubbed two sides, ditto „	6 0
3 in. sawn two sides slabs (random sizes) „	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 6½
1½ in. to 2 in. ditto, ditto „	1 4

HARD YORK—

	s. d.
Delivered at any Goods Station, London.	
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto „	6 1½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto ditto „	2 1½
2 in. self-faced random flags.... Per yd. super	9 0

CAST STONE.

Delivered in London Area in full van loads, per ft. cube :—Plain, 8s. 6d.; Moulded, 9s. 6d. Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£28 0	3 × 6	£21 0
4 × 9	25 0	3 × 11	25 0
4 × 8	24 0	2 × 11	25 0
4 × 7	23 0	3 × 9	24 0
3 × 8	21 0	2½ × 9	23 0
3 × 7	20 0	3 × 4½	22 0
2½ × 7	20 0	3 × 4	22 0

PLANED BOARDS.

1 × 11 ..... £27 0 | 1 × 9 ..... £26 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	20/-	1¼	31/-
¾	22/-	1½	34/-
1	25/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	25/-
1¼	31/-
1½	34/-

MATCHING (BEST).

Inches.	per sq.
¾	16/6
¼	19/-
1	24/-

BATTENS.

Inches.	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle	0 2 4

1" AND UP THICK.

	£ s. d.		£ s. d.
Dry Austrian Wainscoat, per ft. cube	0 16 0 to 0 18 0	24 by 12	37 12 6
Dry American and /or Japanese Figured Oak, ft. cube	0 15 0 to —	22 by 12	34 0 0
Dry American and/or Japanese Plain Oak, ft. cube	0 11 0 to 0 13 0	22 by 11	31 5 0
Dry sq. edged Honduras Mahogany, ft. cube	0 16 0 to 0 18 0	20 by 12	29 15 0
Dry Log cut Honduras Mahogany, ft. cube	0 18 0 to 1 1 0	20 by 10	25 12 6
Dry Cuba Mahogany, ft. cube	1 4 0 to 1 10 0	18 by 10	21 2 6
Dry Teak, ft. cube	0 13 0 to 0 15 0	18 by 9	18 12 6
Dry American Whitewood, ft. cube	0 11 0 to 0 14 0	16 by 10	17 12 6
Best Scotch glue, per cwt.	4 10 0 to —	16 by 8	13 15 0
Liquid Glue, per cwt.	4 7 0 to 5 10 0		

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Delivered at London rate stations in full truckloads of not less than 4 tons. Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 12 6
Ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
„ Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	12 0 0	⅜ in. to ½ in.	10 15 0
⅛ in.	11 0 0	⅝ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Black Gas	60 %	50 %	60 %
Galvanised Gas	45 %	40 %	50 %
Blue Water	55 %	45 %	55 %
Galvanised Water	38½ %	35 %	45 %
Red Steam	50 %	40 %	50 %
Galvanised Steam	32½ %	30 %	40 %

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/2½	11½d.	3½d.
3½ in.	1/4	1/0½	3½d.
4 in.	1/5	1/2½	3½d.
4½ in.	1/6½	1/4	4½d.
5 in.	1/9½	1/5½	5½d.

O.G. GUTTERS.

3 in.	1/7	1/3½	3½d.
3½ in.	1/7	1/3½	3½d.
4 in.	1/8½	1/4	3½d.
4½ in.	1/10½	1/6½	4½d.
5 in.	2/3	1/9½	5½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/9½	1/2½	1/8½
2½ in. „	1/11½	1/4	2/0½
3 in. „	2/4½	1/8	2/6
3½ in. „	2/10	2/-	2/10½
4 in. „	3/3	2/4½	3/6

L.C.C. COATED SOIL PIPES—London Prices, ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 11	2 3	2 9
2½ in. „	3 5	2 6	3 5
3 in. „	4 1	2 9	4 0½
3½ in. „	4 5½	3 5	4 8½
4 in. „	4 11½	3 9½	5 5½

L.C.C. COATED DRAIN PIPES—London Prices ex Works.

	Pipe.	Bends, stocks angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 3	5 9	7 8
4 in. „ „	6 3	6 11	9 6
5 in. „ „	7 10	12 0	16 3
6 in. „ „	9 6	15 0	20 9

Gasken for jointing, 38/6 per cwt.

IRON—	Per ton in London. £ s. d.
Common Bars	13 0 0 to 14 10 0
Staffordshire Crown Bars—good merchant quality	14 5 0 — 15 5 0
Staffordshire "Marked Bars	16 5 0 .. 17 5 0
Mild Steel Bars	10 0 0 .. 11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0 .. 11 0 0
Hoop iron, basis price	12 0 0 .. 13 0 0
„ Galvanised	27 0 0 .. 28 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	13 5 0 .. 14 5 0
„ „ „ 24 g.	14 5 0 .. 15 5 0
„ „ „ 26 g.	16 5 0 .. 17 5 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 10 0 .. 16 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 10 0 .. 17 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 10 0 .. 20 10 0
No. 1 quality £4 per ton extra.	
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	18 10 0 .. 19 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	19 0 0 .. 20 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	22 0 0 .. 23 0 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	22 0 0 .. 23 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 0 0 .. 26 0 0
Best Soft Steel Sheets, 26 g.	25 10 0 .. 26 10 0
Cut Nails, 3 in. to 6 in.	19 0 0 .. 20 0 0
(Under 3 in. usual trade extras.)	

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c,

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	41 10 0
Pipe in coils	43 0 0
Soil Pipe	45 0 0
Compo Pipe	46 0 0

NOTE—Country delivery, 30s. per ton extra : lots under 3 cwt., 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	27 0 0	—
Do., ex country, carriage forward per ton	28 0 0	—

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	1 0½
Strong sheet „	1 0
Thin „	1 1
Copper nails „	2 3
Copper wire „	2 4

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62*-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1½ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- „

TIN—English Ingots, 2/10 per lb. SOLDER—Plumbers' 1/2, Tinmen's 1/5. Blowpipe 1/6 per lb.

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 0
„ „ „ in barrels „	0 3 2
„ „ „ in drums „	0 3 5
Boiled „ „ in barrels „	0 3 5
„ „ „ in drums „	0 3 8
Turpentine in barrels „	0 5 6
„ in drums (10 gall.) „	0 5 8
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	50 5 0
GENUINE WHITE LEAD PAINT—"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polsoco," "J." Brand and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	68 15 0
Red Lead, Dry (packages extra) per ton	43 0 0
Best Linseed Oil Putty per cwt.	0 15 0
Filocol „	0 15 6
Size. XD Quality ftn.	0 3 6

Continued on next page.

*The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
15 oz. fourths ..	3½d.	32 oz. fourths	7½d.
15 „ thirds	4d.	32 „ thirds	9½d.
21 „ fourths ..	4½d.	Obscured Sheet, 15 oz,	3½d.
21 „ thirds	5½d.	„ „ 21 „	5½d.
26 „ fourths ..	5d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21oz.	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White..	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon: £ s. d.
Oak Varnish.....	Outside	0 14 0
Fine ditto.....	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto.....	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper.....	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak.....	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 6
Best Black Japan		0 10 6
Oak and Mahogany Stain (water).....		0 12 0
Brunswick Black.....		0 7 6
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

TRADE NEWS

Alterations at Brussels.

We have received the following from the Department of Overseas Trade:—The Consul-General for Belgium in London has forwarded documents and drawings relative to a project for alterations to the Place Sainte Croix at Ixelles, Brussels. Offers addressed to the "Conseil Communal d'Ixelles" must be posted at the latest by July 11. Presumably this refers to offers posted in Belgium so that quotations sent from this country should be posted earlier. The documents (in French) and drawings will be forwarded on loan, in order of application, for a few days each to British firms making an application in writing to the Department of Overseas Trade.

A Test on Waterproofed Cement Mortar.

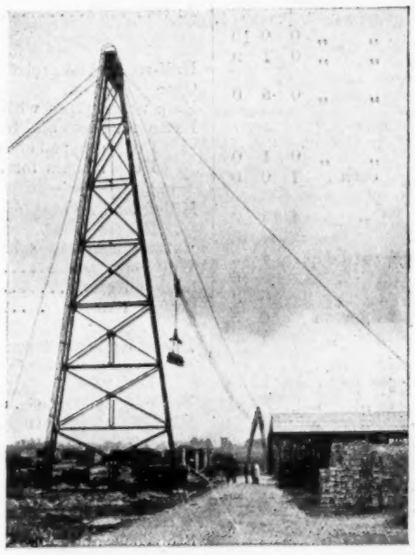
The conclusion of a test which had been in progress during the whole period of the Building Trades Exhibition on the stand of Messrs. Kerner-Greenwood & Co., Ltd., was witnessed on closing day by a large number of visitors. The object of this test was to prove that a mortar of sand and cement treated with "Pudlo" brand cement waterproofer effectively resists permeation by water even under a pressure of 300 lbs. per square inch. This pressure was applied by a hydraulic screw pump to a cylinder of waterproofed cement which was cast over the end of a short length of iron pipe. After the pressure had been maintained continuously for fourteen days, it was removed from the machine and the cylinder broken open in public view. It was then seen that there was no appreciable penetration of moisture into the substance of the waterproofed cement even under this enormous pressure.

Vitreous Glass Mosaic and Tiles.

We have received from Messrs. Cav. Angelo Gianese & Co. two cards of specimens of vitreous glass mosaic for floors, fascias, etc. These are made in ¾-in. and 1-in. squares, and are cut in an improved manner to facilitate fixing. The colours are richly varied, ranging from white through delicate gradations of yellows, greens, blues, greys, and chocolate to black, affording an endless variety of colour combinations for decorative schemes. Mosaic is an extremely effective means of decoration which is coming into fuller use, not only for civic and commercial buildings, but for domestic interiors also, which is not to be wondered at when one remembers that in addition to its decorative possibilities, its hygienic character makes its eminently suitable as a wall and floor surface. Messrs. Gianese & Co., who are represented in this country at 27, Nevis Road, London, S.W.7, are also the manufacturers of tiles and bathrooms and dadoes, and as engine-room wall coverings, etc. Tiles can be supplied in various sizes from 1½ in. by 1½ in. up to 6 in. by 6 in., with intermediate variations of dimensions. Angle pieces are supplied in two sizes—4 in. by 1½ in. and 4 in. by 2 in.

Aerial 'Cable' Crane.

Illustrated on this page is the latest type of aerial cable crane, which is now in operation on the timber wharf of Messrs. Sydney Priday & Sons, timber merchants (dealing exclusively in oak). This cable crane enables them to pick up a load of 1½ tons out of a barge in the river, and convey it 500 ft. up the wharf in one operation. The whole run can be done in under half a minute. We understand that its advantages are



speed, simplicity, and the absence of the many obstructions which exist in some means of transport, such as trolley lines and pillars, &c. A winch and motor are established at the river end of the wharf, and the conveyor carriage is controlled from there. Messrs. Sydney Priday & Sons, whose address is Oak Wharf, Ravensdale-road, Stamford Hill, N.16, will be pleased to show this cable crane to anyone interested.

Solway House, Manchester.

We learn that Messrs. Matthews & Mumby, Ltd., Manchester, were responsible for the fireproof door installation at Solway House, illustrated in a recent issue, each of the goods lift openings on the eight floors being fitted with a pair of their Guarantor armoured doors. Under the new Fire Insurance Regulations which are now in operation the British Fire Offices' Committee has given official approval to doors made by Messrs. Matthews & Mumby, Ltd. Their Guarantor fire-doors have always been guaranteed in the manner now required by the insurance companies, that is by means of a plate attached to the door certifying its construction to be in accordance with their printed rules.

The "Glow-Worm" Small-size Boiler.

A growing demand for a small size boiler has led to the development and production of the "Glow-Worm" Minor which is now on the market. Embodied in the design of this boiler are patented features, which are claimed to be unique in cast-iron boilers, and which tend materially towards improved efficiency. For instance, the firebox, instead of being smooth as is usually the case, is, in the "Glow-Worm" Minor, heavily ribbed. These ribs, being cast vertically, do not obstruct the downward feeding of the fuel; but by making immediate contact with the incandescent coke, they attain a relatively high temperature, and consequently absorb and transmit more heat to the water inside the boiler than a plain heating surface could do. Indeed, scientific tests have proved this, while even the most casual observation will show that in those boilers possessing a firebox with a plain surface the fuel is actually black and comparatively cool where it is in contact with the heating surfaces. Another advantage of the vertical internal ribs is that they form channels for the admission of air so that the combustion of the fuel is most active next the boiler heating surface instead of, as is the case with other boilers, in the centre of the firebox. In other respects, the "Glow-Worm" Minor retains most of the well-known features which have distinguished the "Glow-Worm" No. 1 and No. 2.

Tube Fittings.

We have received an abridged catalogue from Le Bas Tube Co., Ltd., of Billiter-street, E.C.3, of +GF+ malleable pipe fittings for general use in the heating and plumbing industry and in all branches of gas, water, steam, air, oil, and chemical engineering. It is stated that these fittings are beaded to give the maximum strength and to prevent stretching when used with taper thread tubes or fittings. They are non-porous, are screwed in dead alignment, and are of clean finish and smooth bore. The makers claim that they are employed on steam lines carrying as much as 225 lb. per sq. in. at 650 deg. F., and that absolute immunity from casting defects is ensured by an individual test of 300 lb. per sq. in. on each fitting sent out.

Visit to Wireworks.

The Master, Wardens, Court of Assistants, and Livery of the Worshipful Company of Tinplate Workers, alias Wireworkers of London paid a visit recently to the Moston Works of Rd. Johnson, Clapham & Morris, Ltd. They went through the works and saw various processes carried out there in the manufacture of copper wire, all classes of steel and other wirework being manufactured, including wire netting and the weaving of wire. At the conclusion of the visit the Company was entertained by Mr. A. L. Johnson (chairman and managing director of Rd. Johnson, Clapham & Morris, Ltd.) and Mrs. Johnson, Mr. O. E. Wilson, a director of the Company and general manager of the works, assisted by Mr. B. Taylor, director and manager of the parent company's subsidiary, Johnson's Reinforced Concrete Engineering Company. Mr. C. W. Berry, Master of the Worshipful Company, announced that they would have pleasure in presenting a silver cup to be competed for by department teams of the Company's employees at cricket, to be called "The Worshipful Company of Wireworkers Cup."

Institution of Quarry Managers.

An innovation at the Conference of the Institution of Quarry Managers which is to be held at Llandrindod Wells, July 12-17, will be the award by Sir Henry P. Maybury, C.B., K.C.M.G., President of the Institution, of the first Maybury Medal and Fellowship; a gold medal to be awarded yearly for the best paper submitted by a member of the Institution of Quarry Managers to the Conference. The adjudicators for the award are the President himself, Mr. Robert Bathurst (Vice-President), and Mr. E. P. Page (Chairman). Another innovation will be the holding of an exhibition of plant, machinery, etc., in conjunction with the Conference, and special demonstrations of drilling, blasting, etc., in a quarry close to the exhibition belonging to Mr. Thomas Lant, J.P.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	32	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	10
Axed in stocks	" "	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	1	0
Setting ordinary register grates and stoves	each	1	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4 15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	8	6
¾ inch on flats in two thicknesses	" "	6	3
Angel fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	20	0

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors, and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		44/6	53/-	60/6
Do. tongued and grooved	"		49/-	57/6	65/-
Do. matchings	"	45/-	51/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super.	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1½"	1¾"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1½"	1¾"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1½ in.	per ft. run	0	9
Mahogany handrail: average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roof work	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	56	0
Do. Do. in flats	"	55	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/5	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	4
Do. Do. Sirapite	" "	2	7
Do. Do. Keen's	" "	3	7
Add sawn lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, &c., for suspended ceilings.)			
Portland cement screed	per yard sup.	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8½
26 oz. Do.	" "	1	0
Obscured sheet	" "	1	1
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	10½
¼ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	"	1	2
Preparing for and hanging paper	per piece, 2/- to	4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes accepted. † Denotes provisionally accepted.
‡ Denotes recommended for acceptance.
§ Denotes accepted subject to modifications.

APPLEBY.—Housing scheme, for the T.C.:—
Slating and plastering—
*T. Bailey & Sons £402 0 0
Joiner work—
*T. Langley 823 0 0
Mason work—
*J. Robinson 131 7 7
Plumbing, painting and glazing—
*J. W. Iveson 410 13 0

BALDERSTONE.—Reconstructing and widening Spade Bridge, for the Lancashire C.C.:—
*J. M. Firth, Todmorden £2,717 7

BEDFORD.—New science block and music rooms at the Girls' High School, for the Governors of the Harpur Trust. Mr. G. P. Allen, F.R.I.B.A., architect and surveyor, 81, High-street:—
H. Bowler, Bedford £14,500
J. Corby & Son, Bedford 13,838
Redhouse & Sons, Stotfold 13,605
S. Foster, Ltd., Bedford 13,141
*W. Laughton, Bedford 12,650
Surveyor's estimate 12,702

BELPER.—The Holbrook sewage works extensions for the R.D.C. Messrs. Elliott & Brown, engineers, Burton-buildings, Nottingham:—
J. & J. Warner, Mickleover £989 0 0
Evans Bros., Riddings 825 0 0
Bowmer & Kirkland, Heage 799 18 6
F. Perks & Son, Long Eaton 762 0 0
C. S. Tomlinson, Alfreton 750 0 0
Harris & Hunt, Marehay, Derby.. 685 0 0
*J. Payne, Matlock 626 10 0

BICESTER.—Six houses on the Buckingham-road site, for the U.D.C. Mr. Hubert T. Smith, surveyor:—
Jackson & Son, Bicester, Oxon.... £3,162 11
Bartlett Bros., Witney, Oxon.... 3,123 0
*Jennings & Prosser, Brill Thame, Oxon 2,858 0
Lewis Penn, Launton, Oxon..... 2,136 10

BURNLEY.—Exhauster house at the Old Hall Gasworks, for the Corporation. Borough Surveyor and Engineer:—
Excavator, Mason—*Wellerman Bros., Ltd., Sheffield.
Structural Steelwork—*J. Webb & Sons, Ltd., Bury.
Roof Sheeting—*Weston & Co. (Manchester), Ltd., Manchester.
Painting—*Lord & Sons, Burnley.

CAMBRIDGE.—170 parlour type and 32 non-parlour houses on the Coleridge-road estate, for the T.C.:—

	Group 1. 48 A.3 houses.	Group 2. 76 A.3 houses.	Group 3. 46 A.3 houses. and 32 A.2 houses.
J. R. Bennet & Sons	£24,912 ..	£38,532 ..	£38,766
‡J. Brignell	20,400 ..	32,148 ..	32,826
Coulson & Son	27,655 ..	43,569 ..	41,921
Hard & Dickerson ..	23,032 ..	35,606 ..	—
Johnson & Bailey ..	24,720 ..	— ..	—
G. B. Mortlock	24,720 ..	— ..	—
Rice Bros.	23,472 ..	37,164 ..	37,022
Triangular Cons. ..	— ..	— ..	99,988*
D. G. Underdown, Ltd.....	— ..	— ..	91,850*

*170 houses.

FARNLEY TYAS (YORKS.).—Ten houses, for the U.D.C. Messrs. J. Berty & Sons, architects:—
Masons—*A. Hirst & Co., Honley.
Joiner—*Albert Gill, Thurstonland.
Plumbers—*T. Allison, Ltd., Milnsbridge,
Plasterers—Oldfield Bros., Honley.
Painters—Haigh & Lawton, Riley Kirkburton.
Slater—*T. B. Tunnacliffe, Huddersfield.
(Subject to the approval of the M.H.)

GLASGOW.—Electrical sub-station at Bellefield Sanatorium, for the T.C.:—
‡W. Taylor & Sons..... £693 18 6

GLASGOW.—Painter work of the additional pavilions at Bellefield Sanatorium, for the T.C.:—
‡R. Flemington & Son, Lanark.... £585 14 9

ISLE OF WIGHT.—Six houses at Gunville (three pairs of parlour-type houses), for the R.D.C. Mr. R. Jolliffe, architect and surveyor, 6, Shooter's-hill, Cowes; quantities by the architect:—
T. & E. W. Jenkins £4,500
O. A. Hayles 3,780
*A. A. Westmore 3,175
(All of Isle of Wight.)

LANCASHIRE.—Contracts Nos. 2 and 3, for the construction of the new by-pass road at Garstang, for the C.C.:—
Contract No. 2—
‡W. Turner (Ardwick), Ltd. £28,024
Contract No. 3—
‡Sir Lindsay Parkinson & Co., Ltd... 48,693

LEYBURN.—Reinforced concrete bridge at Castle Bolton Ghyll, for the R.D.C. Mr. P. Utley, Highway Surveyor:—
G. Tondy, Stockton-on-Tees £953 4 0
Yorkshire Hennebique Contracting Co., Leeds..... 938 6 6
W. V. Patrick, Grassington..... 931 8 0
*John Burfield, Ltd., Leeds 606 12 0
J. H. Thistlethwaite, Bellerby .. 567 4 0
J. C. Cradock, Leyburn 556 1 0

LEYTON.—Sub-station at corner of Whipps Cross road and Cottons-lane, for the U.D.C.:—
F. J. Coxhead..... £2,075
E. A. Russell..... 1,980
W. J. Maddison, Ltd..... 1,974
J. & J. Dean..... 1,943
H. C. Horswill, Ltd..... 1,910
J. T. Luton & Sons..... 1,679
W. J. Clemens 1,649
‡Kind & Co..... 1,499

LEYTON.—Seventy-five houses on the Nursery Park estate, for the U.D.C. Mr. J. H. Jacque, L.R.I.B.A., architect:—

	Concrete Blocks. £	Brick-work. £
F. J. Coxhead, Leytonstone ..	46,350 ..	47,850
Cottage Club Estates, Ltd., London	44,844 ..	44,844
A. Monk, Edmonton	46,780 ..	46,180
R. J. Rowley, Tottenham	44,080 ..	44,468
Rowley Bros., Tottenham	— ..	48,230
†E. A. Russell, Leytonstone	43,350 ..	46,375
J. Sands, Walthamstow (for 38 houses only)	25,118 ..	—
S. Shaw, Barnsbury	47,859 ..	—

LEYTON.—For (*a*) electric lighting, and (*b*) hot water heating installations at Sybourn-street infants' school, for the U.D.C.

(*A*)

Hunt, Richard & Co., Ltd., London £340 0 0
J. Hurden, Leyton 320 0 0
J. T. Halsey & Sons, Stratford.. 310 12 6
F. Warnell, Walthamstow 298 0 0
Eastern Armature Co., London 295 0 0
J. A. Ryan, Jun., Leytonstone.. 290 0 0
Malcolm & Allan, London.... 274 10 0
Smethurst & Co., Ltd., London 270 1 6
A. H. Churchman, London.... 265 0 0
Lowke & Sons, Ltd., Northampton 250 0 0
Commercial Telephone & Electrical Co., Ltd., London .. 247 0 0
G. A. Weston, London..... 225 0 0
‡Burdette & Co., Ltd., London .. 205 0 0

(*B*)

T. Eaton, Wimbledon £1,603 0 0
A. H. Churchman, London.... 980 0 0
Griffiths, Sons & Cromwell, Ltd., London 977 0 0
T. McDowell, London 948 0 0
J. Combe & Sons, Ltd., London 907 0 0
Clark, Hunt & Co., Ltd., London 907 0 0
J. T. Halsey & Sons, Stratford.. 845 0 0
C. P. Kinnell & Co., Ltd., London 845 0 0
Lowke & Sons. Ltd., Northampton 785 0 0
‡Fretwell Heating Co., London.. 769 0 0

LLANTARNAM.—Eight houses on the Wesley-street site, Cwmbran, for the U.D.C. Mr. A. F. Viney surveyor and engineer:—
A. G. Underwood, Chepstow, Mon..... £4,832 0 0
J. H. Monks, Newport 4,790 0 0
J. M. Bradfoot, Newport, Mon. 4,352 0 0
A. A. Simmons, Cwmbran, Mon. 4,347 15 3
*Beere Bros., Pontnewydd, Mon. 4,000 0 0
Surveyor's estimate, £4,216.
(Subject to the approval of the M.H.)

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LONDON.—Transformer sub-station and convenience at Shepherd's Bush Green, for the Hammersmith B.C. Mr. R. Hampton Clucas, Borough Engineer and Surveyor:—
Wagstaffe & Sons £1,085 0
A. T. Rowley 1,046 0
H. J. Goodman 1,209 0
F. G. Cressy, Ltd..... 950 10
*W. H. Cooper & Son 950 0
All of London.

LONDON.—Reconstruction of Bow-street Police Station. Mr. G. Mackenzie Trench, F.R.I.B.A., Police Architect and Surveyor, New Scotland Yard, S.W.1. Quantities by Messrs. Thurgood, Son & Chidgey, 18, Adam-street, W.:—
Holloway Bros. £11,822
Prestige & Co., Ltd. 11,503
J. Mowlem & Co., Ltd. 11,315
T. H. Adamson & Son 11,151
Thomas & Edge 10,962
Hy. Kent 10,900
Higgs & Hill 10,740
Patman & Fotheringham 10,722
Lole & Co. 10,567
A. E. Symes 10,382

LONDON.—Electric lighting, mains, and power to the Islington Guardians' schools, Andover-row, Hornsey-road, N., for the Guardians of St. Mary, Islington. Mr. E. J. Harrison, L.R.I.B.A., architect, 23, Berkeley-road, Crouch End, N.8:—
Simplex Electric Lamp Co... £4,750 0 0
J. M. Jamieson..... 2,300 0 0
Dalziel Engineering Co. 2,020 0 0
Smethurst & Co. 1,818 1 6
McHone & Haynes 1,797 0 0
W. C. Clutton 1,600 0 0
Electrical Installations, Ltd. 1,566 15 6
E. H. Finn 1,427 0 0
Higginbotham & Co. 1,400 0 0
Ridout & Ratcliff..... 1,392 0 0
P. M. Braidwood 1,385 10 0
Ellis & Ward..... 1,349 10 0
Locke & Soares..... 1,309 16 0
G. A. Weston 1,308 0 0
*Morris Electrical Co., Ltd. .. 1,225 0 0
All of London.

MENSTON.—Outside painting of several buildings at the Mental Hospital, Menston, near Leeds, for the West Riding C.C. Mr. W. E. H. Burton, architect:—
*Pickles, Ayland & Co., Ltd., Ossett.. £355 10

MERTHYR TYDFIL.—Fifty-six houses at Gellifaelog, for the T.C.:—
H. Smith, Newport ..... —
Durnford Construction Co. (Bristol), Ltd. ..... —
Building & Public Works Construction Co., Ltd., Swindon £31,900
†Borough Architect (direct labour).... 29,848

MUSSELBURGH.—Fifty-two houses at the Monktonhall-road site, for the T.C. Mr. John Barcley, Burgh Surveyor:—
*J. Cullen, Musselburgh £21,956

NOTTINGHAM.—Condensing water pipe line, for Messrs. Gerard Bros., Ltd., soap manufacturers, Nottingham. Messrs. Elliott & Brown, engineers, Burton-buildings:—
H. H. Barry, Radcliffe-on-Trent .. £1,352 10
A. H. Price & Co., Nottingham.... 1,261 19
Evans Bros., Riddings 1,200 0
F. Perks & Son, Long Eaton 1,046 0
*Hodsons, Ltd., Nottingham 972 3

PORTSMOUTH.—Nine houses and garages, Burbidge-grove, Southsea, for Messrs. Ross & Ross:—Messrs. Thomas & Wilkins, architects, 30, Landport terrace:—
A. E. Porter & Son, Church-street, Portsmouth £10,200
E. & A. Sprigings, Stamshaw, Portsmouth 9,800
Howe & Bishop, Francis-avenue, Portsmouth 8,573
H. Jones & Son, Broad-street, Portsmouth 8,415
John Lay & Co., Arundel-street, Portsmouth 7,989
†Wedge & Foley, Eldon-street, Portsmouth 7,525

PORTSMOUTH.—Billiard-hall, committee room and flat, &c., at Fratton-road, for the Radical Club. Messrs. Thomas & Wilkins, architects, 30, Landport-terrace. Quantities by the architects:—
H. Townsend, Portsmouth £4,453 6 3
Portsmouth, Gosport & District Builders' Guild, Portsmouth 4,189 0 0
Samuel Salter, Portsmouth 4,181 0 0
John Lay & Co., Portsmouth .. 3,987 0 0
H. Jones & Son, Portsmouth .. 3,857 0 0
‡Portsea Island Mutual Co-operative Society, Ltd., Portsmouth 3,780 17 8

PORTSMOUTH.—Nine houses, Burbidge-grove, Southsea, for Messrs. Ross & Ross, auctioneers and estate agents. Messrs. Thomas & Wilkins, architects, 30, Landport-terrace:—
A. E. Porter & Son..... £10,200
E. & A. Sprigings 9,800
Howe & Bishop 8,573
H. Jones & Son 8,415
John Lay & Co. 7,989
†Wedge & Foley..... 7,525

READING.—156 houses on the Oxford-road housing site, for the C.B. Mr. J. S. Paton, housing architect, Old College Buildings:—
‡A. A. Moynihan, Theale £71,947

STIRLING.—Thirty-eight houses at Drip-road, for the T.C. Mr. A. H. Goudie, Burgh Surveyor; quantities by Mr. Wm. Henderson, Measurer, Glasgow:—

Brickwork—			
*B. Reynolds & Son, Stirling	£5,106	9	2
Joiner—			
*Wm. McPherson & Son, Stirling	3,972	13	10½
Glazier—			
*Arch. Walls, Stirling	102	13	0
Slater—			
*Wm. Milne & Co., Stirling	880	11	4½
Plumber—			
*J. Merrilees, junr., Stirling	2,003	6	8
Plasterer—			
*Alex. Walls, Stirling	1,465	10	8
Painter—			
*McIntosh & Hill, Stirling	338	3	7
Ranges and grates—			
*Wm. Somerville & Valentine, Stirling	383	3	0
Cement and rough cast—			
*P. White & Co., Glasgow	505	9	4
Electric light—			
*D. Henderson, Glasgow	244	15	10

STOKE-ON-TRENT.—Reconstruction of the roof of the Fenton Town Hall, for the T.C.:—

‡E. Knight £230

STOKE-ON-TRENT.—Re-covering the roof of the Palais-de-Danse, Hanley, for the T.C.:—

‡J. W. S. Harrington, Hanley £370

STOKE-ON-TRENT.—Erection of Shirley-road sub-station building, Hanley, for the T.C.:—

*Cousens & Allport, Burslem £715

STOWE-BY-CHARTLEY.—Village hall. Mr. W. E. Rogers, architect, Rugeley:—

J. E. May, Alrewas	£835	0	0
Spencer & Son, Cannock	802	8	5
Chell & Sons, Uttoxeter	800	0	0
R. Knobbs, Weston, Stafford	770	5	0
W. Foster, Hixon, Stafford	721	0	0
*Ward & Godbeherd, Uttoxeter	715	0	0

THORNBURY.—Sixteen houses at Berkley, for the R.D.C. Mr. F. W. Davies, surveyor:—

F. J. Simmonds, Gloucester	£8,286	0	
C. Walters & Son, Bristol	8,192	0	
Building & Public Works Construction Co., Ltd., Swindon	7,904	0	
W. J. B. Halls, Ltd., Gloucester	7,454	0	
D. J. Williams, Porth	7,382	0	
*E. W. Dimery, Berkeley	7,288	10	

UXBRIDGE.—Reconstruction of and additions to the Nurses' Home at the Union Institution, Hillingdon, for the B.G. Messrs. A. Saxon Snell & Phillips, F.A.R.I.B.A., architects:—

M. Greenwood & Son, Ltd., Harlesden	£18,823	11	5
Y. J. Lovell & Son, Gerrards Cross	16,712	0	0
A. & B. Hanson, Ltd., Southall	15,822	0	0
Walker & Slater, Derby	15,778	0	0
Prestige & Co., Grosvenor-road	15,619	0	0
W. J. Maddison, Ltd., Minories, East	15,571	0	0
F. D. Hidden & Co., Ltd., Brentford	15,295	12	9
F. P. Johnson, Southall	14,895	0	0
E. D. Winn & Co., London	13,969	0	0
*Building & Public Works Construction Co., Swindon	13,752	0	0

WAKEFIELD.—Pair of semi-detached residences at the Mental Hospital, for the West Riding C.C. Mr. W. E. H. Burton, architect and engineer:—

*W. H. Nicholson & Son, Ltd., Wakefield	£3,094	14	6

WALLASEY.—Thirty-eight houses on the Belvidere-road site, for the C.B. Borough Surveyor and Engineer:—

*A. H. Chelmick, Wallasey £23,570

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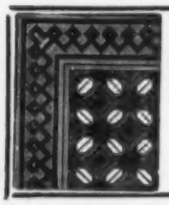

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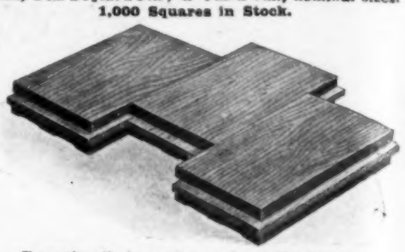

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